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On 51 tables and 24 figures results are given of 11-year daily measurements of the aerosol particle spectrum measured with 5-fold double stage impactors (mean particle diam. 0.2...5 µm). The measurements were made at three neighboring mountain stations (0.7, 1.8, and 3 km a.s.l.) in the northern Alps and are valid (verified by radiosonde comparisons over 90 km distance) for a range of round 200 km diameter if no disturbances of synoptic scale are close by The spectra have been parameterized according to various meteorological aspects: Seasons / air mass type / temperature and humidity / aerosol mass per volume / visibility range / height dependence.

The data serve as climatoligical basis by means of which visibility and light transmission can be estimated from meteorological data under conditions in Middle Europe.

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PARAMETERIZATION OF THE VERTICAL PROFILE OF THE AEROSOL CONSTITUTION IN THE LOWER TROPOSPHERE AS A FUNCTION OF METEOROLOGICAL CONDITIONS AND HORIZONTAL EXTENSION

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EUROPEAN OFFICE OF AEROSPACE RESEARCH AND DEVELOPMENT London, England

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The study under contract was designed to statistical processing and meteorological parameterization of the aerosol particle spectrum obtained from simultaneous measurements at three neighboring mountain stations of about 1 km height difference each (highest-situated station 3 km a.s.l.). The measured values compiled in this report and their parameterization shall provide the means to infer for a larger geographical area around our stations on the basis of known meteorological conditions the particle size spectrum and to derive therefrom predictions about visibility conditions.

The large-scale validity of the measurement results has been verified through comparing the fine structures of radiosonde ascents at our Institute with those from the German Weather Service at Munich. The linear distance between the two radiosondes is nearly 90 km. From the clearly positive results of these comparisons it can be concluded that under certain meteorological conditions (no front systems close by) the applicability of our data obtained at 1.8 km (about 830 mb) and 3.0 km a.s.l. (about 710 mb) is valid in practice for a range of 200 km distance at least from the west across the north to the east and thus specifically at and above the boundary layer, i.e., between 2 - 3 km altitude above sea level where the influence of near-ground sources of air pollution is negligible. Yet, it is but natural that within the boundary layer, mainly between ground and 500 - 800 m above, also horizontal inhomogeneities are to be expected.

The data tables compiled in our present report show the frequency distributions of the particle concentration per size interval whereby the applicability of these tables certainly gains in value.

For the most important parameters used for classifying the data material the aerosol profiles have been plotted graphically in order to increase in this manner the clearness of the results.

We refrained from including in this report - on account of the voluminous amount of data alone - our verbal interpretations of the measured results. Thus, the data tables and diagrams presented per parameter constitute the core of the information to be provided.

2. SUPPLEMENTARY STATEMENTS AND REFERENCES TO PRECEDING REPORTS TO FACILITATE UNDERSTANDING OF THE RESULTS

First it should be mentioned that we dispense in this report with the presentation of data obtained with the Knollenberg particle analyzer. Results acquired with this type of instrument in the valley (0.7 km) and on the Wank (1.8 km a.s.l.) are found in our Interim Scientific Report of 30 April 1979. A noteworthy augmentation of this type of data was not possible because the measuring device on the Wank was so severely damaged by a lightning stroke that it was out of operation for 9 months until complete repair and recalibration. Therefore, we restrict ourselves in the present report to the 11-year measuring series obtained with the five-fold double stage impactors, including the full year 1980.

A detailed description of this five-fold double stage impactor is found in our Progress Report No.2 of 20 October 1978 in Chapter 3, pages 5-10. This description includes also the method of counting the aerosol particles deposited on the slides of the 5 stages by means of an automatic microscope with TV-camera and connected computer for the control of the

microscope table and recording of particles. In Figure A we show once more the deposition curves for the separately working but parallel-operated double impactor stages.

The mean diameter $D_1 - D_5$ is indicated in each deposition curve:

 $D_1 = 0.23 \, \mu m$

 $D_2 = 0.45 \mu m$

 $D_3 = 0.93 \, \mu m$

 $D_4 = 2.0 \, \mu m$

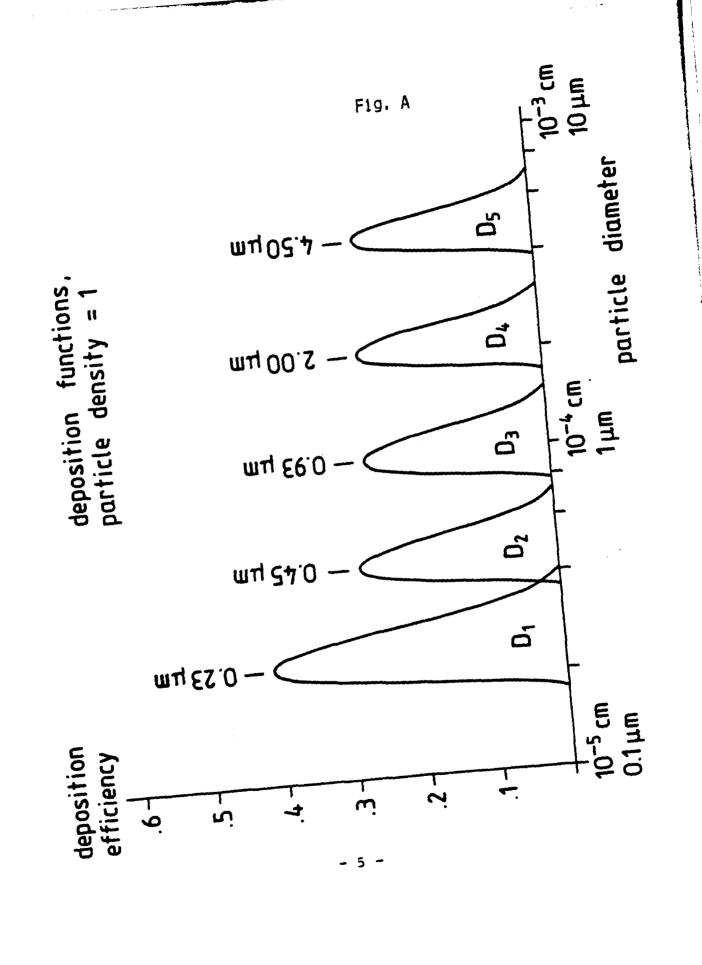
 $D_5 = 4.5 \mu m$

Besides, the data tables show always the relevant mean particle diameter per impactor stage.

Based on different parameters, <u>Tables 1 - 98</u> present, as mentioned, a. the frequency distribution of the particle concentration per particle size class, $D_1 cdots D_5$, where the frequency is given in 1/10%, b. the appertaining mean value, c. the number of measurements, and d. the simple scatter sigma.

On a total of 51 diagrams the spectra are given on the basis of the different parameterizations. The particle concentration dN d log D (cm³) is plotted at the ordinate; the abscissa shows diameter D in micrometers where the five mean deposition diameters per impactor stage (see Figure A) are indicated by values D₁ - D₅.

The legend of tables contains the respective parameters as well as a reference to the number of the appertaining table in which the measured values can be found in digitized form.

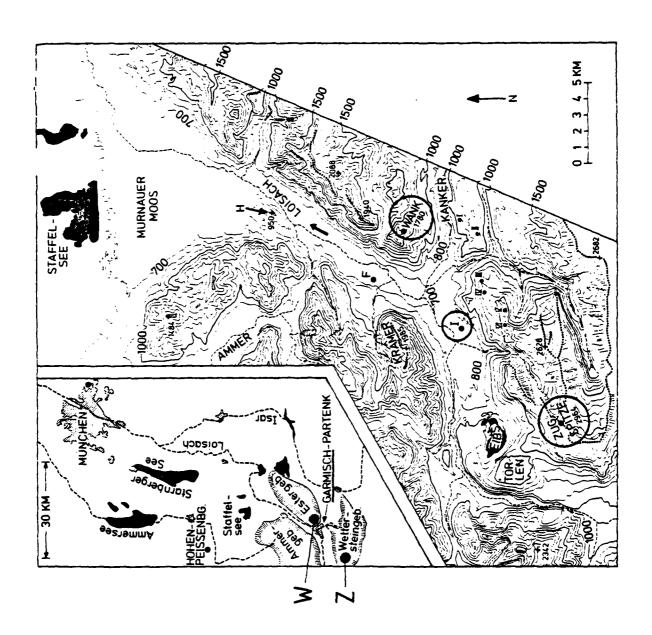


3. BRIEF DESCRIPTION OF THE GEOGRAPHICAL SITUATION

Figure B gives an overview of the geographical situation. The partial picture in the upper left clearly reveals that our measuring stations Garmisch-Partenkirchen (0.7 km), Wank peak (W; 1.8 km), and Zugspitze peak (Z; 3 km a.s.l.) are located at the northern edge of the Alps south-southwest of Munich. With regard to their favorable geographic location, at least the stations W and Z provide particle size spectra whose range of validity extends far to the north into the pre-alpine region. Something must be said hereon later.

The main map on Figure B illustrates in detail the topography of the terrain (the 3 stations in circles, I = Institute, valley station at 740 m a.s.l.).

Fig. B



4. THE PARAMETERS USED FOR CLASSIFYING THE ENTIRE MATERIAL

TABLE A

Parameterization of aerosol particle spectra at the three

stations on Data Tables 1 - 98

| Table Number | Parameter |
|--------------|---|
| 1 - 3 | Total mean values for the 3 stations Garmisch, Wank peak, and Zugspitze peak |
| 4 - 15 | Total mean values per station, sepa- rately for seasons |
| 16 - 21 | Differentiation according to air mass type, valley station |
| 22 - 27 | Differentiation according to air mass type, Wank peak |
| 28 - 33 | Differentiation according to air mass type, Zugspitze peak |
| 34 - 35 | Measured values in Garmisch at extremely high and extremely low temperature, respectively, on the Zugspitze |
| 36 - 37 | Same as above for particle spectra at Wank peak |
| 38 - 39 | Same as above for particle spectra at the Zugspitze |

| 40 - 46 | Particle spectra in Garmisch at different rel. humidity |
|---------|--|
| 47 - 53 | Same as above for station Wank |
| 54 - 60 | Same as above for station Zugspitze |
| 61 - 65 | Particle spectra in the valley at different aerosol concentration (measured by weighing of exposed aerosol filters) |
| 66 - 67 | Same as above for station Wank |
| 72 - 74 | Particle size spectra for different visibility conditions in Garmisch |
| 75 - 79 | Same as above for station Wank peak |
| 80 | Particle size spectra on the Zugspitze at visibility >95 km |
| 81 - 87 | Particle size spectra in Garmisch with different exchange coefficients between valley and Wank |
| 88 - 94 | Same as above for particle size spectra at Wank peak |
| 95 | Particle size spectra on the Zugspitze at extremely weak exchange between valley and Wank |
| 95 - 98 | Particle spectra at the 3 station with high concentration of Be7, i.e., during strong influx of stratospheric air down to Zugspitze level at least |

TABLE B

Parameterization of aerosol particle spectra at the three stations on Figures 1 - 51

| Figure | Number | Parameter |
|--------|--------|---|
| 1 | | Entire material |
| 1 - | 5 | Mean spectra per station for the four seasons |
| 6 - | 8 | Spectra for extreme particle concentration |
| 9 - | 11 | Spectra per station for different seasons |
| 12 - | 13 | Spectra for extremely high and extreme- ly low aerosol concentrations, resp. |
| 14 - | 19 | Spectra for different air mass types, separately for stations |
| 20 - | 25 | Different air mass types per station |
| 26 - | 30 | Spectra from the 3 stations at extreme temperatures on the Zugspitze |
| 31 - | 37 | Spectra with different rel. humidities per station |
| 38 - | 41 | Spectra at different aerosol concentrations per station |
| 42 - | 46 | Particle spectra at different visibil- ity conditions per station |

47 - 50 Particle spectra at different exchange coefficients between valley and Wank

51

Particle spectra at the 3 stations in the case of extremely high values of the Be7 as indicator of stratospheric air intrusions down to Zugspitze.

As mentioned before, we dispense here with a discussion of singularities in the contents of tables and figures. The importance of those will largely depend on the specific scientific aspect of the respective reviewer. Depending on the kind of parameter and station there are indeed significant differences in the spectra allowing a manifold application of same.

5. ON THE SPACIAL VALIDITY OF THE AEROSOL SPECTRA MEASURED AT THE MOUNTAIN STATIONS; VERIFICATIONS WITH THE AID OF RADIOSONDE COMPARISONS

A first study, based on comparative radiosonde ascents at Garmisch-Partenkirchen and Munich, was described in the Interim Scientific Report of 30 April 1979 in Chapter 4 from page 8 on. It should be noted at this point that, in all, further more than 100 radiosonde comparisons are available which practically led to the same result as shown in Table 2 on page 10 of the above report. That means in other words: In round 50% of the cases we find between 900 and 600 mb agreement - often down to the details - in the fine structures of radiosondes flown the same day at Garmisch-Partenkirchen and Munich. The accompanying weather situations have been analyzed: In the majority of cases we had high pressure weather permitting for-

mation of homogeneous layers over an area of 200 - 400 diameter north of the alpine region. If there appeared differences in the structures between Garmisch-Partenkirchen and Munich they could, as a rule, readily be attributed to meteorological disturbances of synoptic scale like frontal systems.

In Figures 1 - 15 we show at first cases with good to excellent agreement between 900 and 700 mb (800 - 700 mb at least) mainly of the lapse rates of temperature but in many cases also of relative humidity which is, of course, stronger subjected to local fluctuations. But there are cases in which almost perfect agreement is found even in the fine structure of the relative humidity (Fig.1, Fig.4, Fig.5, Fig.6, Fig.8, Fig.11, Fig.12, Fig.14).

This first group of 15 comparisons is however only a representative selection from a still greater number of comparisons we made. In Figures 16 - 19 follows a series where still reasonably good agreement is observed in the range of temperature. In the relative humidity we have partly very good (Fig.18) and partly moderate conformity.

A group of radiosonde comparisons is now shown in Figures 20 - 24. We observe that here marked differences appear in the temperature lapse rate and relative humidity which clearly contrast with the good agreement in the other figures mentioned. Studying the weather maps regularly reveals that in such cases a frontal system moved between the Munich and the Garmisch radiosonde leading inevitably to temperature changes in the lower troposphere and thus also to humidity changes in the same region. Naturally, under such conditions, agreement in the atmospheric structure and hence also in the aerosol distribution with height can no longer be expected.

6. CONCLUSIONS

The importance of such radiosonde comparisons Garmisch-Partenkirchen/Munich for a verification of the horizontal range of validity of our measurements lies in the fact that the vertical thermal stratification or temperature structure is decisive for the control of the vertical exchange and thus for the inhomogeneity or homogeneity of the aerosol layer. This has been extensively described in our Interim Scientific Report of 30 April 1979 and documented there by Figures 5 - 6.

We believe that the analysis performed by us of radiosonde ascents the same day at two sites round 90 km apart gives more conclusive evidence than a few (originally planned) comparative lidar profile measurements which could have been made on some rare days only. Moreover, expenditure of time and material required for the performance of such comparative lidar measurements over a large horizontal distance would have exceeded by far the funds available as became apparent only during the course of practical work in the last three years.

Thus, we are convinced to have been able to prove, even without such expensive field experiments, that the aerosol spectra obtained at our mountain stations during 11 years are under the respectively defined meteorological conditions of sufficiently large-scale significance and applicable to an atmospheric layer of about 850 - 650 mb.

- 1. TABLES 1 98
- 2. AEROSOL SPECTRA 1-51
- 3. RADIOSONDE PLOTS, Figures 1 24

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

GARMISCH (VALLEY 740 M) TABLE: 01

PARAMETER* MEAN FREQUENCY DISTRIBUTION OF TOTAL PERIOD

| D1 = 0.23 HI | | D2 = 0.45 HE | | D3 = 0. 93 HI | ı | D4 = 2.00 MI | | DS = 4, 50 MI | |
|---|---------------------------------|---|--------------------------|--|---|---|--------------------------------|---|---|
| RES. NR.: 001 | | , RES. NR. : 002 | | RES. NR. : 04 | 603 | RES. NR.: 004 | | RES. NR. : 005 | |
| FARTICL, COMC. FI | FREGUENCY [1/10 X] | PARTICL. CONC. [X10E-2] | FREGUENCY (1/10 X3 | PARTICL. CONC. [X10E-3] | C. FREGUENCY [1/10 %] | PARTICL. CONC. [X10E-4] | FREGUENCY [1/10 %] | PARTICL, CONC. EXIOE-51 | FREQUENCY [1/10 X] |
| C (10500 00500 00500 01500 01500 01500 01500 01500 02000 02000 | 088 091 080 073 | 00500 - 01000 01000 - 01500 01500 - 02000 02000 - 02000 | 081 110 095 069 | C 00150 00150 - 00 00300 - 00 00450 - 00 | 080 00300 154 00450 118 00600 080 00750 079 | C 00050 00050 - 00100 00100 - 00150 00150 - 00200 00200 - 00250 | 054 | C 00200 00200 - 00400 00400 - 00600 00600 - 00800 | 000 000 000 000 000 000 000 000 000 |
| 02500 - 03000 03000 - 03500 03500 - 04000 04000 - 05000 05000 - 06000 | 059 043 056 053 | 02500 - 03000 03000 - 03500 03500 - 04000 04000 - 04500 04500 - 05000 | 055 046 041 036 | 00750 - 00 00900 - 0 01050 - 0 01200 - 0 | 00900 056 01050 048 01200 049 01350 032 01500 031 | 00250 - 00300 00300 - 00350 00350 - 00400 00400 - 00500 00500 - 00500 | 047 0044 0071 063 | 01000 - 01200 01200 - 01400 01400 - 01600 01600 - 01800 01800 - 02000 | 071 072 054 047 |
| 06000 - 07000 07000 - 08000 08000 - 10000 10000 - 15000 15000 - 25000 | 037 026 063 063 077 | 05000 - 06000 06000 - 07000 07000 - 08000 08000 - 10000 10000 - 15000 | 051 031 035 046 | 01500 - 0 01650 - 0 01800 - 0 02000 - 0 | 01650 022 01800 026 02000 020 02500 047 03000 040 | 00600 - 00700 00700 - 00900 00800 - 00900 00900 - 01000 01000 - 01250 | 0052 0047 0040 0032 | 02200 - 02250 02250 - 02500 02500 - 03000 03000 - 03500 | 040000 |
| 2500 - 4000 4000 - 6000 6000 - 8000 8000 - 10000 >10000 | 039 000 000 | 15000 - 20000 20000 - 30000 30000 - 40000 40000 - 50000 > 50000 | 040 000 000 000 | 03000 - 0. 04000 - 0. 06000 - 1. 10000 - 2. | 04000 037 06000 043 10000 029 20000 000 | 01250 - 01500 01500 - 02000 02000 - 03000 03000 - 06000 > 06000 | 047 061 0042 0000 | 04000 - 05000 05000 - 07000 07000 - 09000 09000 - 12000 | 946 956 900 900 900 |
| NO OF MEASUR. MEAN [X10E-2] SIGMA [X10E-2] | +01559 | NO OF MEASUR. MEAN (X10E-2) SIGMA (X10E-2) | +01525 | NO OF MEASUR MEAN (X10E-31 SIGMA (X10E-31 | R. +01525 E-31 +01315 E-31 +01586 | NI OF MEASUR. MEAN (XIOE4) SIGNA (XIOE4) | +01522 1 +00711 1 +00744 | NO OF MEASUR. MEAN (XIOE-5) SIGMA (XIOE-5) | +01509 |
| | | | | | | | | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 02
PARAMETER= MEAN FREQUENCY DISTRIBUTION OF TOTAL PERIOD

| HES NR: 006 HES NR: 007 HES NR: 009 HES NR: 009 HES NR: 010 HITLE_21 II/10 x1 I | D1 = 0.23 M1 | | D2 = 0 45 HI | n3 = 0.93 | 93 HE | | 04 = 2. | 2. 00 HI | | 2 | 50 HI | - |
|--|--------------|----------------------------|----------------------------|---|--------------------------------|---------------------------------|---|---------------------------------|---------------------------------------|--|---------------------------------|---------------------------------|
| FREGRENCY PARTICL_CONC. FREGRENCY | | | | RES. NR. | | | RES. NR. | | | RES. NR. | | |
| 2200 CSS COLOS C | | REGUENCY 1/10 %1 | PARTICL. CONC. [X10E-2] | PARTICL. | • | EQUENCY 710 X3 | PARTICL (X10 | | REQUENCY 1/10 %1 | PARTICI | CONC. 0E-53 | FREGUENCY [1/10 X] |
| - 01200 061 0620 - 00500 - 00600 035 00150 - 00200 055 05150 - 00175 | 0500 | 059 089 073 073 | 00 1 1 1 1 | 00025 00025 00050 00076 00100 | | 058 070 065 058 | 00025000500007600100 | | 096 121 098 076 063 | 00025 00025 00050 00076 00100 | | 004 018 026 042 038 |
| - 02500 078 0200 - 02500 047 00450 - 00500 025 00350 - 00400 039 00350 - 00400 039 00350 - 00400 039 00350 - 00400 039 00350 - 00400 039 00350 - 00400 039 00350 - 00400 039 00350 - 00400 039 00400 039 00400 - 00400 041 01500 - 00400 041 01500 - 00400 041 01500 - 00400 041 01500 - 00400 041 01500 - 00400 041 01500 - 00400 041 01500 - 00400 041 01500 - 00400 041 01500 - 00400 041 01500 - 00400 041 01500 - 00400 041 01500 - 00400 041 01500 - 00400 041 01500 - 00400 041 01600 041 01600 041 01600 041 01600 041 01600 041 01600 041 01600 041 01600 041 01600 041 01600 041 01600 041 01600 041 01600 041 01600 | 11111 | 043 040 037 | 11111 | | | 050 050 050 044 028 | 00125 00150 00175 00200 00250 | | 060 040 043 040 | 00125 00150 00175 00200 00250 | | 032 037 044 084 070 |
| - 06000 035 07000 - 09000 038 01000 - 01500 077 00600 - 00700 030 00600 - 00700 - 01000 050 00700 - 01000 050 00700 - 01000 050 00700 - 01000 050 00700 - 01000 050 00700 - 01000 050 00700 - 01000 050 00700 - 01000 050 00700 - 01000 075 01000 - 01000 075 01000 - | 11111 | 078 063 057 041 | 1111 | | | 027 025 032 032 086 | 00300 00350 00400 00450 00500 | | 037 030 024 046 | 00350 00450 00450 00550 | | 084 056 062 043 076 |
| MEABUR +01363 NO OF MEASUR. +01339 NO OF MEASUR. +01361 NO OF MEASUR. +01366 NO OF MEASUR. +01366 NO OF MEASUR. +01366 NO OF MEAN [X10E-2] +02113 MEAN [X10E-2] +02565 MEAN [X10E-3] +00547 MEAN [X10E-4] +00272 MEAN [X10E-2] +02014 SIGMA [X10E-2] +03282 SIGMA [X10E-3] +00659 SIGMA [X10E-4] +00325 SIGMA | 11110 | 033 025 000 000 | 111100 | 01000 01500 02000 03500 > 060 | | 077 050 000 000 | 00600 00700 01000 02000 > 040 | | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 00600 00700 01000 02000 0 0 04 | | 000 000 000 000 000 |
| | I | +01363 +02113 +02014 | E . | 11 6 | EASUR. [X10E-3] [X10E-3] | +01361 +00547 +00659 | | FEASUR. [X10E-4] [X10E-4] | +01366 | | MEASUR. [X10E-5] [X10E-5] | +00487 +00405 |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 03 ZUGSPITZE PEAK 3000 M

PARAMETER = MEAN FREQUENCY DISTRIBUTION OF TOTAL PERIOD

| NR.: 015 ICL. CONC. FREQUENCY |
|----------------------------------|
| PARTICL. CO |
| FREUMENCY PARTICL. CONC. |
| |
| 073 |
| < 00015 |
| |
| 980 |
| 3 |
| \$ 00013 |
| 810 |
| ì |
| \$ 000 S |
| |
| |
| |

TABLE: 04 GARMISCH (VALLEY 740 M)

PARAMETER = MEAN FREQUENCY DISTRIBUTION PER SEASON : WINTER

| DI = 0.23 HI | | D2 = 0.45 HI | | D3 ≈ 0.93 MI | - | D4 = 2.00 HI | | DS = 4. 50 HI | |
|--|---------------------------------|---|---|---|---------------------------------|---|--------------------------|---|---------------------------------|
| RES. NR.: 016 | | RES. NR.: 020 | • | RES. NR. : 024 | | RES. NR.: 028 | | RES. NR. : 032 | |
| PARTICL. CONC. F | FREGUENCY | PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 X] | PARTICL. CONC. FF [X10E-3] [1 | FREGUENCY [1/10 %] | PARTICL. CONC. FR [X10E-4] [1 | FREGUENCY | PARTICL, CONC. [X10E-5] | FREGUENCY [1/10 %] |
| 005000050000500010001500015000200002000 | 089 091 043 053 | C 00500 00500 - 01 01000 - 01 01500 - 02 | 01000 137 01500 106 02000 080 02500 077 | \$\circ\$ 00150 \\ 00150 - 00300 \\ 00300 - 00450 \\ 00450 - 00450 \\ 00600 - 00750 | 098 169 167 108 071 | C 00050 00050 - 00100 00100 - 00150 00150 - 00200 | 048 084 079 100 | < 00200 00200 - 00400 00400 - 00600 00600 - 00800 00800 - 01000 | 002 052 118 107 099 |
| 02500 - 03000 03060 - 03500 03500 - 04000 05000 - 05000 | 055 035 045 045 | 02500 - 03 03000 - 03 03500 - 04 04500 - 04 | 03000 051 03500 033 04000 033 04500 036 | 00750 - 00900 00900 - 01050 01050 - 01200 01200 - 01350 01350 - 01500 | 061 045 034 018 018 | 00250 - 00300 00300 - 00350 00350 - 00400 00400 - 00500 00500 - 00600 | 061 058 041 064 | 01000 - 01200 01200 - 01400 01400 - 01600 01600 - 01800 01800 - 02000 | 078 049 039 041 |
| 06000 - 07000 07000 - 08000 08000 - 10000 10000 - 15000 15000 - 25000 | 022 022 083 109 096 | 05000 - 06000 - 07000 - 07000 - 07000 - 09000 - 10000 1 10000 1 15000 | 06000 049 07000 031 08000 028 10000 049 15000 064 | 01500 - 01650 01650 - 01800 01800 - 02000 02000 - 02500 02500 - 03000 | 018 010 015 037 | 00600 - 00700 00700 - 00800 00800 - 00900 00900 - 01000 01000 - 01250 | 048 043 020 053 | 02000 - 02250 02250 - 02500 02500 - 03000 03000 - 03500 03500 - 04000 | 041 039 052 028 |
| 25000 - 40000 40000 - 60000 60000 - 80000 80000 - 100000 | 050 027 005 000 000 | 15000 - 20 20000 - 30 30000 - 40 40000 - 50 > 50000 | 20000 025 30000 046 40000 007 50000 000 | 03000 - 04000 04000 - 06000 06000 - 10000 10000 - 20000 > 20000 | 034 042 000 000 | 01250 - 01500 01500 - 02000 02000 - 03000 03000 - 06000 | 023 035 038 000 | 04000 - 05000 05000 - 07000 07000 - 09000 09000 - 12000 | 052 086 023 000 |
| Σ | | E | -53 | Σ | +00377 | NEASUR. [X10E-41 | +00390 | Σ | +00381 |
| T-DIVI MANGE | 067111 | 77-30141 41016 | /6490+ 77- | [6-30]K1 (H0) | 81010+ | Sturit LAIDE-41 | 1//00+ | SIGNM LK10E-3J | 1,810+ |

TABLE: 05 GAR

GARMISCH (VALLEY 740 M)

| SPRING |
|--------------|
| • • |
| SEASON |
| PER |
| DISTRIBUTION |
| FREGUENCY |
| MEAN |
| PARAMETER= |

| H 0.45 HI |
|---|
| 021 |
| PARTICL. CONC. FREQUENCY [X10E-2] [1/10 X] |
| < 00500 072 |
| |
| 01500 077 |
| 02500 064 |
| 03000 042 |
| |
| 04000 050 |
| |
| 06000 040 |
| |
| 10000 |
| |
| |
| 30000 082 40000 016 |
| - |
| NO UF MEASUR. +00374 |
| [X10E-2] +07220 |
| [X10E-2] +07693 |
| |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PARAMETER= MEAN FREQUENCY DISTRIBUTION PER SEASON : SUMMER GARMISCH (VALLEY 740 M) TABLE: 06

| B1 = 0. 23 HI | | | - 0. 45 H | | IN = 0.93 MI | | D4 = 2, 00 HI | | US = 4. 50 HI | | |
|---|--------------------------|--|--|---------------------------------|---|---------------------------------|---|---------------------------------|---|--|--------------------------|
| RES NR.: 018 | | RES. NR. : | .: 022 | | RES. NR. : 026 | | RES. NR. : 030 | | RES. NR. : 034 | ₹ | |
| PARTICL, CONC. F LX10E-23 1 | FREQUENCY | PARTICL. CONC. [X10E~2] | • | FREGUENCY (1/10 X) | PARTICL. CONC. FI | FREGUENCY [1/10 %] | PARTICL. CONC. FRE | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-5] | FREGUENCY | <u></u> |
| 0350 | 083 093 085 | 00500 - 010000 - 01000 - 01000 - 01000 - 01000 - 01000 - 01000 - 01000 - 010000 - 01000 - 01000 - 01000 - 01000 - 01000 - 01000 - 01000 - 010000 - 01000 - 01000 - 01000 - 01000 - 01000 - 01000 - 01000 - 010000 - 01000 - 01000 - 01000 - 01000 - 01000 - 01000 - 01000 - 01000 - 01000 - 01000 - 01000 - 01000 - 01000 - 01000 - 01000 - 01 | | 053 086 076 | < 00150 00150 - 00300 00300 - 00450 00450 - 00600 | 055 157 104 078 | 00 | 077 053 074 043 | 0500 | 00400 00600 00800 0 | 017 082 112 092 |
| 1 1 1 | 090 | 02200 | | 980 | 1 1 1 | 089 053 053 | 1 11 | 038 041 | | | 089 079 079 |
| 04000 - 04000 04000 - 05000 05000 - 06000 | 047 073 062 | 0400 04500 | 04500 | 960 980 938 | 01050 - 01200 01200 - 01350 01350 - 01500 | 033 043 543 | 00350 - 00400 00400 - 00500 00500 - 00600 | 038 037 059 | 01400 - 010 01600 - 010 01800 - 020 | 01600 01800 02000 | 046 058 025 |
| 06000 - 07000 07000 - 08000 08000 - 10000 10000 - 15000 15000 - 25000 | 037 032 055 042 | 05000 06000 07000 08000 | - 06000 - 07000 - 08000 - 15000 | 071 030 025 033 071 | 01500 - 01650 01650 - 01800 01800 - 02000 02000 - 02500 02500 - 03000 | 027 033 025 050 053 | 00600 - 00700 00700 - 00800 00800 - 00900 00900 - 01000 01000 - 01250 | 066 051 046 035 061 | 02000 - 02 02250 - 02 02500 - 03 03000 - 03 | 02250 0 02500 0 03000 0 03500 0 | 056 051 064 035 |
| 25000 - 40000 40000 - 60000 60000 - 60000 80000 - 100000 >100000 | 000 000 000 000 | 15000 - 20000 - 30000 - 40000 - > 50000 | - 20000 - 30000 - 40000 - 50000 | 040 025 000 000 | .03000 - 04000 04000 - 06000 06000 - 10000 10000 - 20000 > 20000 | 022 043 000 000 | 01250 - 01500 01500 - 02000 02000 - 03000 03000 - 06000 > 06000 | 041 071 051 015 | 04000 - 036 05000 - 076 07000 - 096 09000 - 12 | 03000 07000 09000 12000 | 000 000 000 000 |
| NO OF MEASUR. MEAN (X10E-2) | +00397 | NO OF P | MEASUR. [X10E-2] | +00391 | NO OF MEASUR. MEAN (X10E-3) | +00393 | NO OF MEASUR. + | +00333 | NO OF MEASUR. MEAN (X10E-51 | +00390 | 0 8 |
| SIGNA [X10E-2] | +06272 | STOMA | [X10E-2] | +05437 | SIGMA (X10E-31 | +01393 | SIGNA LX10E-41 + | +00709 | SIGMA [X10E-5] | -51 +01596 | <u> </u> |

TABLE: 07 GA

GARMISCH (VALLEY 740 M)

PERIOD: 1970-1980

PARAMETER- MEAN FREQUENCY DISTRIBUTION PER SEASON : AUTUMN

| D1 = 0 23 MI | | D2 = 0.45 MI | | D3 = 0.93 HI | | D4 = 2.00 MI | | BS = 4.50 HI | |
|--|---------------------------------|---|---------------------------------|---|--|---|--------------------------------|---|---|
| RES. NR.: 019 | | RES. NR. : 023 | | RES. NR. : 027 | | RES. NR. : 031 | | RES. NR. : 035 | |
| PARTICL, CONC. FI | FREQUENCY [1/10 %] | PARTICL. CONC. FI | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-3] | FREQUENCY | PARTICL. CONC. [X10E-4] | FREGUENCY | PARTICL. CONC. [X10E-5] | FREGUENCY |
| 00500 00500 - 01000 01000 - 01500 01500 - 02000 02000 02000 | 078 088 073 080 | C 00500 00500 - 01000 01000 - 01500 01500 - 02000 | 083 112 123 075 085 | 00150 00150 - 00300 00300 - 00450 00450 - 00600 00600 - 00750 | 00 172 50 101 00 103 50 069 | 00050 00050 - 00100 00100 - 00150 00150 - 00200 00200 - 00250 | 037 058 058 053 | 00200 00200 00200 00400 00600 00800 00800 | 013 0 076 0 055 0 071 0 076 |
| 02500 - 03000 03000 - 03500 03500 - 04000 04000 - 05000 | 073 033 054 065 | 02500 - 03000 03000 - 03500 03500 - 04000 04000 - 04500 04500 - 05000 | 040 045 032 024 026 | 00750 - 00900 00900 - 01050 01050 - 01200 01200 - 01350 01350 - 01500 | 50 061 50 045 50 061 50 029 60 034 | 00250 - 00350 00300 - 00350 00350 - 00400 00400 - 00500 00500 - 00600 | 053 | 01000 - 01200 01200 - 01400 01400 - 01600 01600 - 01800 01800 - 02000 | 0 052 0 081 0 028 0 055 |
| 06000 - 07000 07000 - 08000 08000 - 10000 10000 - 15000 15000 - 25000 | 054 018 065 086 073 | 05000 - 06000 06000 - 07000 07000 - 09000 09000 - 10000 10000 - 13000 | 045 024 032 042 083 | 01500 - 01650 01650 - 01800 01800 - 02000 02000 - 02500 | 50 00 00 00 00 00 00 00 04 04 04 04 | 00500 - 00700 00700 - 00800 00800 - 00900 00900 - 01000 01000 - 01250 | 0028 | 02200 - 02250 02250 - 02500 02500 - 03000 03000 - 03500 | 0 050 0 050 0 092 0 047 |
| 25000 - 40000 40000 - 60000 60000 - 80000 80000 - 100000 >100000 | 023 013 000 000 | 15000 - 20000 20000 - 30000 30000 - 40000 40000 - 50000 > 50000 | 050 045 026 000 | 03000 - 04000 04000 - 06000 06000 - 10000 10000 - 20000 > 20000 | 000 000 000 000 000 000 | 01250 - 01500 01500 - 02000 02000 - 03000 03000 - 06000 > 06000 | 000 | 04000 - 05000 05000 - 07000 07000 - 09000 09000 - 12000 | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |
| ND OF MEASUR. MEAN [X10E-2] SIGMN [X10E-2] | +06477 | NO OF MEASUR. MEAN [X10E-2] SIGNA [X10E-2] | +00373 | ND OF MENSUR. MEAN (X10E-3) S1GMA (X10E-3) | +00376 31 +01302 31 +01545 | NO OF MEASUR. MEAN (X10E-4) SIGMA (X10E-4) | +00375 1 +00689 1 +00696 | NO OF MEASUR. MEAN [X10E-5] SIGMA [X10E-5] | +00380 1) +02081 1) +01658 |

TABLE: 08 WANK PEAK 1780 M

PERIOD: 1970-1980

PARAMETER = MEAN FREQUENCY DISTRIBUTION PER SEASON : WINTER

| DI = 0.23 MI | | 02 = 0.45 | 45 HI | | D3 = 0, 93 | 3 MI | | D4 = 2.00 | 2. 00 HI | | | 4. 50 MI | |
|--|---------------------------------|---|--|---------------------------------|---|----------------------------------|---------------------------------|---|---|----------------------------|---|---|---------------------------------|
| RES. NR. : 036 | | RES NR. | . 040 | | RES. NR. : | 044 | | RES. NR. | 048 | _ | RES. NR. | : 052 | |
| FARTICL. CONC. FI | FREGUENCY [1/10 %] | PARTICL. CONC. EX10E-21 | | FREGUENCY [1/10 %] | PARTICL CUNC. [X10E-3] | _ | FREGUENCY [1/10 X] | PARTICL, CONC. [X10E-4] | | FREGIENCY [1/10 X] | PARTICL. CONC. [X10E-5] | _ | FREGUENCY [1/10 %] |
| 00200 00200 00400 00400 00500 00800 00800 00800 | 108 148 141 039 064 | C 00100 00100 - 00200 - 00300 - | 00 - 00200 - 00300 - 00400 - 00500 | 188 142 036 058 083 | <pre></pre> | 00050 00076 00150 | 042 092 089 095 | 00025 00025 00050 00076 00100 | 5 00050 00076 00100 00125 | 118 130 108 099 | 00025 00025 00050 00076 00100 | 255 - 00050 - 00076 - 00100 - 00125 | 006 024 030 046 040 |
| 01000 - 01200 01200 - 01400 01400 - 01600 01600 - 01300 01800 - 02000 | 040 043 027 024 | 00500 00600 00750 01000 01500 | - 00600 - 00750 - 01000 - 01500 | 043 055 037 068 | 00150 00200 00250 00300 | 00200 00250 00300 00350 | 095 092 064 052 042 | 00125 - 00150 - 00175 - 00200 - | 00150 00175 00200 00250 00300 | 068 055 059 045 | 00125 00150 00173 00200 00250 | - 00150 - 00175 - 00200 - 00250 - 00300 | 040 037 040 111 |
| 02000 - 02500 02500 - 03000 03000 - 03500 03500 - 04000 04000 - 05000 | 067 055 055 027 015 | 02000 02500 03000 04000 | - 02500 - 03000 - 04000 - 05000 | 049 027 043 021 | 00400 00450 00500 00500 | 00450 00500 00600 00700 | 030 012 033 039 | 00300 - 00350 - 00450 - 00500 | 00350 00400 00450 00500 | 034 009 012 015 | 00300 00350 00400 00450 00500 | - 00350 - 00400 - 00450 - 00500 - 00500 | 109 064 064 043 |
| 05000 - 06000 06000 - 08000 08000 - 10000 10000 - 15000 | 015 015 000 000 | 07000 - 07000 - 12000 - 15000 - > 20000 | - 09000 - 12000 - 15000 - 20000 | 003 000 000 000 | 01000 :: 01500 :: 02000 :: 03500 :: > 06000 | 01500 02000 03500 06000 | 027 015 000 000 | 00500 00700 01000 02000 > 04000 | 00700 01000 02000 04000 | 000 000 000 000 | 00600 - 00700 - 01000 - 02000 - > 04000 | - 04000 - 04000 - 02000 - 04000 | 024 095 000 000 |
| NO OF MEASUR. MEAN [X10E-2] SIGNA [X10E-2] | +00324 +01529 +01686 | NO OF MEASUR MEAN CXIOE SIGNA CXIOE | EASUR. [X10E-2] [X10E-2] | +00323 | NO OF ME MEAN (SIGMA (| MEASUR. [X10E-3] [X10E-3] | +00326 +00283 +00370 | NO OF MEAN C | MEASUR. [X10E-4] [X10E-4] | +00322 +00178 +00223 | NO OF H MEAN SIGMA | MEASUR. [X10E-5] [X10E-5] | +00324 |

TABLE: 09 WANK PEAK 1780 M

PARAMETER= MEAN FREQUENCY DISTRIBUTION PER SEASON : SPRING

| D1 = 0, 23 MI | H C | | D2 = 0. 45 MI | . 45 HI | ! | | 0 # 60 | 0. 93 MI | | D4 m 2. | 2. 00 HI | | D5 = 4. | = 4.50 HI | |
|---------------------------|------------|-----------------------|---------------|----------------------------|-------|-----------------------|----------------------------|----------|-----------------------|----------------------------|----------|-------------|----------------------------|-----------|---|
| RES. NR. | 037 | | RES. NR. : | | | | RES. NR. | . 043 | | RES. NR. | . 049 | | RES. NR. | .: 053 | |
| PARTICL. CONC [X10E-2] | | FREQUENCY [1/10 %] | PARTIC | PANTICL, CONC. [X10E-2] | FRE(| FREGUENCY [1/10 X] | PARTICL. CONT. [X10E-3] | | FREUMENCY [1/10 X] | PARTICL. CUNC. [X10E-4] | | FREGUENCY | PARTICL. CONC. [X10E-5] | | FREQUENCY |
| < 00200 | | 032 | 00100 > | 001 | | 091 | < 00025 | 125 | 078 | < 00025 | 725 | 087 | < 00025 | 025 | 003 |
| 1 | 00400 | 940 | 00100 | - 00200 | 8 | 620 | 00025 | - 000050 | 052 | 00025 | _ | 060 | 00025 | - 000050 | 014 |
| 00400 | 00400 | 049 | 00500 | - 00300 | 000 | 057 | 00050 | - 00076 | 043 | 00050 | - 00076 | 080 | 00030 | - 00076 | 017 |
| ı | 00010 | 183 | 00400 | 1 | 00200 | 042 | 00100 | - 00130 | 078 | 00100 | - 00125 | 067 | 00100 | - 00125 | 037 |
| - 90010 | 01200 | 049 | 00200 | 98 | 00900 | 024 | 00130 | - 00200 | 057 | 00125 | - 00150 | 053 | 00123 | - 00150 | 025 |
| 01200 - | 01400 | 643 | 00900 | 8 | 00750 | 042 | 00700 | - 00250 | 040 | 00120 | _ | 980 | 90.00 | - 00175 | 034 |
| 01400 | 01600 | 040 | 86739 | 100 | 0000 | 980 | 00220 | 00300 | 990 | 00175 | | 080 1 | 00175 | - 00200 | 040 |
| | 00000 | 020 | | 1 | 9000 | 070 | 00300 | | 9 6 | 00200 | 00200 | 0 c | 00200 | 00700 | 2000 2000 2000 2000 2000 2000 2000 200 |
| | 2000 | (7) | 7 | | 3 | 0 | 00000 | - | 63 | 00700 | | 740 | 200 | - | 000 |
| 02000 - | 02200 | 102 | 02000 | - 025 | 02200 | 648 | 00400 | - 00450 | 037 | 00300 | - 00320 | 028 | 00800 | - 00320 | 080 |
| 02200 | 03000 | 960 . | 02500 | ලි - | 03000 | 090 | 00420 | - 00200 | (637 | 00320 | - 00400 | 031 | 00320 | - 00400 | 051 |
| 03000 | 03200 | 200 | 03000 | - 04(| 04000 | 075 | 00200 | 00900 - | 040 | 00400 | - 00450 | 042 | 00400 | 00450 | 074 |
| 04000 - | 02000 | 658 658 | 02000 | 720 - | 00020 | 689 | 00200 | 00010 - | 101 | 00500 | - 00500 | 031 076 | 00500 | 00900 - | 870 870 |
| - 00000 | 06090 | 040 | 07000 | 960 - | 00060 | 045 | 01000 | 01300 | 086 | 00900 | - 00200 | 038 | 00900 | - 00700 | 990 |
| CKKKOO - | 09000 | 055 | 00060 | - 120 | 12000 | 039 | 01500 | - 62000 | 057 | 00200 | - 01000 | 062 | 00200 | - 01000 | 137 |
| - 00080 | 10000 | 043 | 12000 | in i | 15000 | 980 | 05000 | _ | 072 | 01000 | | 020 | 01000 | - 02000 | 129 |
| - CKWKI | CKW)CI | 2 8 | 0000 | | 20002 | 900 | 03200 | 00030 - | 000 | 02000 | - 04000 | 0 0 0 | 02000 | 9000 | 005 |
| oroci < | | 3 | 11007 < | <u> </u> | | 9 | 00090 < | 200 | 9 | 04000 < | 200 | 000 | 0000 | 990 | 8 |
| NO OF MEASUR | | +00342 | NO CF | NO UF MEASUR. | Ŧ | +00331 | NO CF | MEASUR | +00346 | NO OF | MEASUR | +00323 | у 92 | MEASUR | +(x)348 |
| MENN CX1 | [X10E-2] + | +02655 | MEGN | [X10E-2] | | +03071 | MEAN | [X10E-3] | +00653 | MEAN | [X10E-4] | +00314 | MEAN | EX10E-53 | +00236 |
| STOMM CXI | CX10E-23 + | +02211 | SIGNA | [X10E-23 | | +03453 | SIGNA | EX10E-31 | +00742 | SIGMA | (X10E-4) | +00346 | SIGMA | (X10E-5) | +00412 |
| | | | | | | | | | | | | | | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 10 WANK PEAK 1780 M

PARAMETER = MEAN FREQUENCY DISTRIBUTION PER SEASON : SUMMER

| D1 = 0.23 MI | | 02 = 0 | D2 = 0. 45 MI | | D3 = 0, 93 MI | 1 | à | D4 = 2. 00 MI | 1 M O | | 195 = 4, 50 ME | 30 MI | |
|---|--|---|--|--------------------------|--|---|---------------------------------|--|---|--------------------------|--|---|---------------------------------|
| RES. NR.: 038 | | RES. NR. : | t.: 042 | | RES. NR. : 0. | 046 | <u> </u> | RES. NR. : | 020 | | RES. NR. : | .: 054 | |
| PARTICL. CONC. [X10E-2] | FREGRENCY [1/10 X] | PARTIC [X1 | PARTICL. CONC. F [X10E-2] [| FREQUENCY [1/10 x] | PARTICL. CONC. [X10E-3] | C. FREGUENCY [1/10 %] | | PARTICL. CONC. [X10E-4] | | FREQUENCY | PARTIC [X14 | PARTICL. CONC. F | FREGUENCY [1/10 %] |
| C 00200 - 00400 00400 - 00400 - 00600 00600 - 00800 00800 - 01000 | 030 000 000 000 000 000 000 000 000 000 | C 00100 00100 - 00200 - 00300 - 00400 - | 100 - 00200 - 00300 - 00400 - 00500 | 050 053 042 033 | C 00025 00025 - 00 00050 - 00 00076 - 00 | 00050 00076 00100 00150 | 059 067 062 028 070 | 00025 00050 00076 00100 | 5 00050 00076 00100 00125 | 070 099 053 076 | 00025 00050 00076 00100 | 025 - 00050 - 00076 - 00100 - 00125 | 005 008 035 035 |
| 01000 - 01200 01200 - 01400 01400 - 01600 01600 - 01800 01800 - 02000 | 00 077 00 038 00 061 00 052 | 00500 00600 00750 01000 | - 00600 - 00750 - 01000 - 01500 | 022 044 070 084 | 00150 - 00 00250 - 00 00250 - 00 00350 - 00 | 00250 00250 00350 00350 00400 | 050 022 036 045 008 | 00125 - 00156 - 00175 - 00200 - | 00150 00175 00200 00250 00300 | 053 036 050 050 | 00125 00150 00175 00200 00250 | - 00150 - 00175 - 00200 - 00250 - 00300 | 026 038 023 052 029 |
| 02500 - 02500 02500 - 03000 03000 - 03500 03500 - 04000 04000 - 05000 | 000 000 000 000 000 000 000 000 000 00 | 02000 02500 03000 04000 | 000000000000000000000000000000000000000 | 056 036 078 056 | 00400 | 00450 00500 00600 00700 01000 | 016 025 079 039 039 | 00300 00350 00400 00450 | 00350 00450 00500 00500 | 039 053 025 025 | 00300 00350 00400 00450 | - 00350 - 00400 - 00450 - 00500 | 073 043 043 049 |
| 05000 - 06000 06000 - 09000 03000 - 10000 10000 - 15000 > 15000 | 000 000 000 000 000 000 | 07000 - 09000 - 12000 - 15000 - 1 | - 09000 - 12000 - 15000 - 20000 | 064 078 025 000 | 01000 - 0 01500 - 0 02000 - 0 03500 - 0 | 01500 02000 03500 06000 | 000 000 000 000 | 00600 - 00700 - 01000 - 02000 - > 04000 | 00700 01000 02000 04000 | 056 079 000 | 00700 00700 01000 02000 | - 00700 - 01000 - 02000 - 04000 | 079 137 167 014 000 |
| NO OF MEASUR. MEAN [X10E-2] SIGMA [X10E-2] | +00359 21 +02299 21 +02046 | NO OF MEAN SIGNA | NO OF MEASUR. MEAN (X10E-2) SIGMA (X10E-2) | +03491 | NO OF MEASUR. MEAN (X10E-3) SIGMA (X10E-3) | R. +00354 E-31 +00691 E-31 +00692 | | NO OF ME MEAN (SIGMA (| MEASJR. [X10E-4] [X10E-4] | +00353 | NE OF SIGHN | HEASUR. [X10E-5] [X10E-5] | +00341 +00609 +00463 |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

WANK PEAK 1780 M TABLE: 11

| | | | | | | | ··· | |
|---------------------|---------------|----------------------------|---------------------------------|---|--|---|---|---|
| | | | FREGUENCY [1/10 %] | 000 027 034 055 | 040 040 074 095 | 077 065 055 040 | 049 061 000 000 | +00417 |
| | 1H 0S | 033 | | 255 - 00050 - 00076 - 00100 - 00125 | - 00150 - 00175 - 00200 - 00250 | - 00350 - 00400 - 00450 - 00500 | - 01000 - 01000 - 02000 - 04000 | MEASUR. [X10E-5] [X10E-5] |
| | D5 = 4.50 | RES. NR. | PARTICL. CONC. [X10E-5] | <pre></pre> | 00125 00150 00175 00200 00200 | 00300 00350 00400 00450 00500 | 00600 - 00700 - 01000 - 02000 - 02000 - 0 04000 | MEAN SIGNA |
| | | | FREQUENCY | 110 170 146 077 050 | 065 035 032 047 | 047 026 044 026 023 | 014 023 000 000 | +00335 |
| | IH 0 | 051 | | 5 00050 00076 00100 00125 | 00150 00175 00200 00250 00300 | 00350 00400 00450 00500 00600 | 00700 01000 02000 04000 | MEASUR. [X10E-4] [X10E-4] |
| Z | D4 = 2.00 | RES. NR. : | PARTICL. CONC. [X10E-4] | <pre></pre> | 00125 00150 00175 00200 | 00300 00350 00450 00550 | 00600 - 00700 - 01000 - 02000 - > 04000 | NO OF ME MEAN (SIGMA (|
| : AUTUMN | | | FREGUENCY [1/10 %] | 045 072 069 087 120 | 060 051 036 033 | 024 027 048 045 078 | 057 053 000 000 | +00332 |
| SEASON | 3 MI | 047 | | 5 00050 00076 00150 | 00200 00250 00300 00350 | 00450 00500 00600 00700 01000 | 01500 02000 03500 06000 | MEASUR. [X10E-3] [X10E-3] |
| PER | D3 = 0.93 | RES. NR. : | PARTICL. CONC. [X10E-3] | <pre></pre> | 00150 - 00200 - 00250 - 00300 - | 00400 - 00450 - 00500 - 00500 - 00500 - 00700 | 01000 01500 02000 03500 > 06000 | NO OF MEAN CO |
| RIBUTION | MI D3 | 9 FREQUENCY (1/10 %) | 085 110 076 024 052 | 052 049 064 095 | 033 027 042 046 | 033 | +00326 +02431 +03432 | |
| DISTR | | m | | 00200 00300 00400 00500 | 00600 00750 01000 01500 02000 | 02500 03000 04000 05000 07000 | 09000 12000 15000 20000 | MEASJR. 1 |
| EQUENCY | D2 = 0. 45 HI | ຊ | PARTICL. CON [X10E-2] | C 00100 00100 - 00200 - 00300 - | - 00500 - 00000 - 000100 - 01000 - 01500 | 02000 - 02500 - 04000 - 05000 | 07000 09000 12000 15000 > 20000 | ND OF MEAN IX SIGMA IX |
| MEAN FREQUENCY DIST | _ | | FREGUENCY [1/10 %] | 089 095 087 082 083 | 077 047 029 020 041 | 250 050 050 054 054 | 033 | +00335 |
| | I E | 620 | | 00400 00600 00800 01000 | 01200 01400 01600 01800 02000 | 02500 03000 03500 04000 05000 | 00070 00001 00080 | -23 |
| PARAMETER= | D1 = 0.23 MI | RES. NR. : | PARTICL. CONC. EXIOE-23 | ¢ 0020000200004000060000800 | 01200 01200 01400 01600 | 02000 - 03000 - 03000 - 03500 - 04000 - 04000 | 05000 - 06000 - 08000 - 10000 - > 15000 | ND OF MEASUR MEAN (XIDE SIGMA (XIDE |
| | | Æ | <u> </u> | 8888 | 00000 | 50000 | 668≍ | Z I 0 |

TABLE: 12 ZUGSPITZE PEAK 3000 M

| PARAMETER= D1 = 0.23 HI RES. NR.: 036 RES. NR.: 036 C0050 - 00100 C0100 - 00150 C0100 - 00250 C0250 - 00250 C0300 - 00200 C0300 - 00200 C0400 - 00200 C0400 - 01200 C0600 - 01200 C0600 - 01200 C1500 - 01200 C1500 - 01200 C1600 - 01200 | FREQUENCY FREQUENCY (1/10 X1) FREQUENCY (1/10 X2) OCCUPANTICL. CON (1/10 X1) OCCUPANTICL. CON (1/10 X1) OCCUPANTICL. CON (1/10 X1) (1/10 X | REGUENCY RES. NR. ; RES. NR. ; ROUGE CX10E- CX1 | EQUENCY DISTRES NR : 0.45 HI RES. NR : 0.60 RES. NR : 0.60 C. 0.0015 C. 0 | LC. FREQUENCY PA COORS OF COOR | S. R. R. C. | SS | FREQUENCY FIG. 1111 000 000 000 000 000 000 000 000 0 | | # 0000 000 000 000 000 000 000 000 000 | FREQUENCY (1/10 X1 093 133 133 099 045 045 045 045 045 045 045 045 045 045 | FES. NR. : PARTICL. C | 25 MI 1072 1072 1073 | FREQUENCY (11/10 %1 008 014 042 042 043 043 042 043 043 043 044 044 044 047 047 047 048 048 049 049 049 049 049 049 049 049 049 049 | |
|---|--|--|--|--|---|----------|---|-------|--|---|-------------------------|---|--|--|
| SIGMA [X10E-2] | 21 +01033 | STOPP | CX10E-23 | +00264 | SIOMA [| [X10E-3] | +00223 | SIGMA | [X10E~4] | +00181 | SIGHA | [X10E-5] | +00193 | |
| | | | | | | | | | | | | | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 13 ZUGSPITZE PEAK 3000 M

PERIOD: 1970-1980

PARAMETER= MEAN FREQUENCY DISTRIBUTION PER SEASON : SPRING

| | | | | | | | | | | | | |
|----------------------------------|----------------------|----------------------------|-----------|----------------------------|-------------|-----------------------|----------------------------|----------|-----------------------|----------------------------|----------|-----------|
| DI = 0.23 MI | | D2 = 0.45 HI | - | 03 = 0. | = 0.93 MI | | D4 = 2.0 | 2. 00 MI | | 85 = A | 4. 50 MI | |
| RES NR.: 057 | | RES. NR.: 061 | | RES. NR. : | . 065 | | RES. NR. : | 690 | | RES. NR. | . 073 | |
| PARTICL, COMC. FR (X10E-21 (1 | FREQUENCY | PARTICL. CONC. (X10E-23 | FREGUENCY | PARTICL. CUNC. [X10E-3] | • | FREGUENCY [1/10 %] | PARTICL. CONC. [X10E-4] | | FREGUENCY [1/10 %] | PARTICL. CONC. [X10E-5] | | FREQUENCY |
| ○ 00020 | 910 | < 00015 | 800 | \$1000 > | <u>.</u> 15 | . 019 | < 00015 | ហ | ₩90 | < 00025 | 125 | 002 |
| ı | 044 | 1 | | | - 000030 | 071 | - 51000 | | 140 | | - 000050 | |
| 00100 - 00150 | 0.00 0.00 0.00 | 00030 - 00045 | 030 | 00030 | - 00045 | 034 | 00030 | 00043 | 094 | 00030 | 4 00076 | 028 |
| 1 | 936 | ı | | | - 00075 | 046 | - 09000 | 00075 | 048 | 00100 | - 00125 | |
| 00220 - 00300 | 024 | 00075 - 00090 | 024 | 00075 | 06000 - | 052 | - 600075 | 06000 | 037 | 00125 | - 00150 | 048 |
| ı | 041 | 1 | | 06000 | - 00105 | 054 | - 06000 | 00102 | 056 | 00120 | - 00175 | |
| ı | 0.27 | 1 | | 00105 | - 00120 | 027 | 00105 | 00120 | 045 | 62100 | - 00200 | |
| ŀ | 090 | 1 | | 00120 | - 00150 | 043 | - 00100 | 00120 | 043 | 00500 | - 00225 | _ |
| 00200 - 00200 | 030 | 00150 - 00200 | 071 | 00120 | - 00200 | 620 | - 00120 | 00200 | 020 | 00225 | ~ 00220 | 048 |
| 00800 - 00900 | 7/0 | 00200 - 00250 | 035 | 00200 | - 00250 | 690 | - 00200 | 00250 | 620 | 00220 | - 00275 | 029 |
| 1 | 047 | 1 | | 00250 | - 00300 | 046 | 00250 - | 00300 | 054 | 00275 | - 00300 | |
| 01000 - 01250 | 074 | 00300 - 00400 | | 00300 | - 00400 | 074 | 00300 | 00400 | 062 | 00300 | - 00325 | |
| 1 | 103 | 00600 - 00400 | 280 | 8 | 00900 | 100 | 00400 | 00000 | 200 | 00323 | 2820 | 020 |
| | | , | | 2000 | | 2 | | | | 3 | 3 | |
| 1 | 083 | 00900 - 01500 | | 00600 | - 01500 | 890 | - 00600 | 01200 | 027 | 00400 | - 00200 | 060 |
| ı | 090 | ı | | 01200 | - 02200 | 041 | 01200 | 02200 | 032 | 00200 | - 00750 | |
| ı | 091 | ı | | | • | 021 | 02500 | 02000 | 8 | 00730 | _ | |
| 00071 - 17000 | 560 | 00001 - 00000 | | 02000 | 00001 | 000 | 02000 | 00001 | 000 | 0000 | 00020 - | |
| 00071 | 9 | 00001 < | 000 | 00001 < | 900 | 8 | 00001 ^ | Q | 000 | 00020 < | 900 | 8 |
| NO OF MEASUR. | +00361 | NO OF MEASUR. | +00362 | NO OF H | MEASUR. | +00364 | NO OF MEASUR. | ASUR. | +00370 | NO OF MEASUR | WEASUR. | +00354 |
| MEAN [X10E-2] | +01618 | MEAN [X10E-2] | +01242 | MEAN | (X10E-3) | +00434 | MEAN C | CX10E-43 | +00239 | MEAN | [X10E-5] | 16.600+ |
| SIGMA [X10E-2] | +01705 | SIGMA (X10E-2) | +01461 | SIGNA | (X10E-3) | +00269 | STOMA | CX10E-41 | +00392 | STOMA | [X10E-5] | +00278 |
| | | | | | | | | | | | | |
| | | | | | - | | | | | | | |

TABLE: 14 ZUGSPITZE PEAK 3000 M

PERIOD: 1970-1980

PARAMETER = MEAN FREQUENCY DISTRIBUTION PER SEASON : SUMMER

| D1 = 0.23 HI | - - - | 02 = 0.45 | 45 HI | | 66 '0 = EQ | 3 HI | | D4 = 2. | 2. 00 MI | | DS = 4. 50 | 30 HI | |
|--|---------------------------------|---|--|---------------------------------|---|---|---------------------------------|--|--|---------------------------------|---|---|---------------------------------|
| RES. NR. : 058 | | RES. NR. | : 062 | | RES. NR. : | 990 | | RES. NR. | 070 | | RES. NR. | .: 074 | |
| PARTICL. CONC. F | FREQUENCY | PARTICL. CONC. EXIOE-21 | | FREGUENCY [1/10 X] | PARTICL CONC. [X10E-3] | _ | FREGUENCY [1/10 X] | PARTICL CONC. [X10E-4] | | FREQUENCY | PARTICL. CONC. [X10E-5] | | FREGUENCY [1/10 %] |
| C 00050 00050 - 00100 00100 - 00150 00150 - 00200 00200 - 00250 | 017 031 037 060 | 00015 00015 00030 00045 1 | - 00043 - 00043 - 00060 - 00050 | 000 011 016 025 011 | 00015 - 00015 - 00030 - 00045 - 000045 - 000045 - 000045 - 000045 - 000045 - 0000600 - 000060 - 000060 - 000060 - 000060 - 000060 - 000060 - 00000000 | 5 00030 00043 00060 | 036 050 039 039 | 00015 00030 00045 00060 | - 00045 - 00045 - 00045 - 00050 | 071 090 055 055 | 00025 00025 00050 00076 00100 | 025 - 00050 - 00076 - 00100 - 00125 | 005 005 036 032 |
| 00250 - 00300 00300 - 00350 00350 - 00400 00400 - 00500 00500 - 00500 | 045 025 031 071 | 00075 00090 00105 00120 00150 | - 00090 - 00105 - 00120 - 00130 | 008 028 005 019 | 00075 - 00090 - 00105 - 00120 - 00150 - 00150 | 00030 00105 00150 00200 | 030 033 033 033 | 00075 00090 00105 00120 00150 | - 00090 - 00105 - 00120 - 00150 | 044 024 034 033 | 00125 00150 00175 00200 00225 | - 00150 - 00175 - 00200 - 00225 - 00250 | 032 029 035 044 |
| 006.00 - 00800 00800 - 01000 01000 - 01250 01250 - 01500 01500 - 02000 | 100 091 057 042 071 | 00200 00250 00300 00400 00600 | - 00230 - 00300 - 00400 - 00600 | 044 036 053 087 120 | 00200 - 00250 - 00300 - 00400 - | . 00250 00300 00400 00600 00900 | 042 033 095 084 092 | 00200 00250 00300 00400 00600 | - 00250 - 00300 - 00400 - 00600 - 00600 | 066 055 057 085 068 | 00250 00275 00300 00325 00350 | - 00275 - 00300 - 00325 - 00350 | 032 044 041 058 |
| 02000 03000 03000 04000 04000 06000 06000 12000 > 12000 | 105 034 065 031 | 00900 01500 02500 05000 | - 01500 - 02500 - 05000 - 10000 | 137 162 160 036 000 | 00900 - 01500 - 02500 - 05000 - 05000 - 0 000000 | 01500 02500 05000 10000 | 151 089 000 000 | 00900 - 01500 - 02500 - 05000 - > 10000 | - 01500 - 02500 - 05000 - 10000 | 090 | 00400 00500 00750 01000 > 02000 | - 00500 - 00750 - 01000 - 02000 | 103 150 106 000 000 |
| NO OF MEASUR. MEAN [X106-2] SIGMA [X106-2] | +00350 +01420 +01593 | NO OF M MEAN SIONA | MEASUR. [X10E-2] [X10E-2] | +00356 | NO OF ME MEAN (SIGMA (| MEASUR. [X10E-3] [X10E-3] | +00357 | NO OF H HEAN STOHA | MEASUR. +00363 [X10E-4] +00295 [X10E-4] +00386 | +00363 | NO OF P | MEASUR. (X106-51 (X106-51 | +00449 |

TABLE: 15 ZUGSPITZE PEAK 3000 M

PERIOD: 1970-1980

PARAMETER = MEAN FREQUENCY DISTRIBUTION PER SEASON : AUTUMN

| | | | | | · · · · · · · · · · · · · · · · · · · | | | | | | | | |
|--------------------|----------------------------|---------------|------------------|-----------|---------------------------------------|----------|-----------|----------------------------|-----------|-----------------------|----------------------------|----------|------------|
| | | | | | | | | | | | | | |
| P1 = 0, 23 HI | | D2 = 0. | . 45 MI | | D3 = 0 93 | 3 MI | | 04 = 2. | 2. 00 MI | | D5 = 4. | 4. 50 HI | |
| RES. NR.: 059 | | RES. NR. : | . : 063 | | RES. NR. : | 067 | | RES. NR. | 1.00 : | - | RES. NR. : | .: 073 | |
| PARTICL, CONC. FRE | FREGUENCY [1/10 %] | PARTIC [X1 | PARTICL. CONC. 1 | FREQUENCY | PARTICL. CONC. [X10E-3] | | FREGUENCY | PARTICL. CONC. [X10E-4] | | FREGUENCY (1/10 %) | PARTICL. CONC. [X10E-5] | | FREGUENCY |
| 05000 > | 034 | < 00015 | 015 | 018 | < 00015 | 'n | 038 | < 00015 | . 22 | 058 | < 00023 | 023 | 910 |
| ı | 076 | 00013 | - 000030 | 044 | - 51000 | _ | 290 | 00015 | - 00030 | 168 | 00025 | - 000020 | 026 |
| 00100 - 00150 | 0 0 0 0 0 0 | 00030 | 1 00043 | 069 | 000030 | 00043 | 931 | 00030 | - 00043 | 071 | 00020 | - 00076 | 610 |
| ţ | 032 | 09000 | - 00075 | | - 09000 | 00075 | 057 | 09000 | - 00075 | 077 | 00100 | - 00125 | 690 |
| 00250 - 00300 | 054 | 00075 | - 00000 | 031 | - 22000 | 06000 | 032 | 00075 | 06000 - | 820 | 00125 | - 00150 | 063 |
| ١ | 033 | 06000 | - 00105 | 028 | - 06000 | 00100 | 090 | 06000 | - 00105 | 190 | 00120 | - 00175 | 076 |
| 00350 - 00400 | 044 | 00105 | - 00120 | 041 | - 50100 | 00120 | 044 | 00105 | - 00120 | 042 | 00175 | - 00200 | 920 |
| 00500 - 00500 | 1 8 | | 1 0000 | | 00150 | 00120 | 037 | 00120 | - 00150 | 080 | 00200 | - 00225 | 049 |
| | } | 2 | 70700 | 8 | | 200 | 500 | 20130 | | * | 00223 | 00700 - | 04.3 |
| 1 | 092 | 00200 | - 00250 | | - 00200 | 00250 | 048 | 00700 | - 00250 | 053 | 00220 | - 00275 | 046 |
| ŧ | 290 | 00250 | 00300 | | 00220 | 00300 | 044 | 00220 | - 00300 | 029 | 00275 | - 00300 | 056 |
| 01250 - 01250 | 790 | 00300 | 1 1 00400 | 072 | 00300 | 00400 | 076 | 00300 | - 00400 | 022 | 00300 | - 00325 | 033 |
| ı | 090 | 00900 | 00600 - | | - | 00300 | 073 | 00900 | 00600 - | 029 | 00323 | - 00400 | 033 036 |
| 02000 - 03000 | 150 | 00600 | - 01500 | 094 | - 00600 | 01500 | 048 | 00600 | - 01500 | \$ io | 00400 | - 00500 | 133 |
| ı | 740 | 01500 | - 02500 | | - 00910 | 02500 | 028 | 01200 | - 02500 | 610 | 00200 | - 00750 | 106 |
| 04000 - 06000 | 980 | 02300 | - 05000 | | 02500 | 02000 | 012 | 02:20 | | 000 | 00750 | - 01000 | 049 |
| 500 | 000 | 00001 < | - 00 | 88 | - 00000 | 0000 | 8 8 | 00000 | 00001 - | 88 | 01000 | - 02000 | 029 |
| |) | | ? | 3 | | . | _ } | 1 | 2 | 3 | 70 / | 2 | 3 |
| NO OF MEASUR. | +00312 | <u> </u> | MEASUR. | +00317 | NO OF ME | MEASUR. | +00312 | NO OF P | MEASUR. | +00309 | NO OF | MEASUR. | +00301 |
| MEAN [X10E-2] | +01070 | MEAN | [X10E- 2] | 80900+ | MEAN [] | [X10E-3] | +00342 | MEAN | [X10E-4] | +00170 | PERN | [X10E-5] | +00331 |
| SIGNA (X10E-2) + | +01434 | SIGMA | [X10E-2] | +00941 | STOPPE | [X10E-31 | +00479 | SIGMA | CX 10E-43 | +00300 | SIGMA | CX10E-51 | +00246 |
| | | | | | | | | | | | | ! | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

.

TABLE: 16 GARMISCH (VALLEY 740 M)

| POLAR-MARITIME |
|----------------|
| TYPE: |
| MASS |
| AIR |
| PARAMETER= |

| | | | | | | | | | | | | | |
|----------------------------|--|----------|------------------|----------------------------|----------------------------|----------|------------|----------------------------|----------|-----------------------|----------------------------|----------|---|
| DI = 0.23 MI | | 05 = 0 | D2 = 0. 45 MI | - | D3 = 0.93 | IH - | | 04 = 2. | 2. 00 MI | | D5 = 4.50 MI | 30 MI | |
| RES. NR. : 187 | | RES. NR. | .: · | | RES. NR. : | 189 | | RES. NR. : | . 190 | | RES. NR. : | 161 : | |
| PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 x] | PARTIC | PARTICL. CONC. I | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-3] | | FREQUENCY | PARTICL. CONC. [X10E-4] | | FREGUENCY [1/10 %] | PARTICL. CONC. EX10E-51 | | FREQUENCY [1/10 %] |
| 00200 | 103 | < 00300 | 200 | 130 | < 00150 | _ | 109 | 00020 | 90 | 031 | < 00200 | 002 | 013 |
| ı | | 00200 | - 01000 | | 00150 - | 00000 | 209 | 000020 | - 00100 | 160 | 00200 | - | 097 |
| i | | 0000 | 01200 | | 00300 | 00450 | 134 | 00100 | - 00130 | | 00400 | 00900 - | 114 |
| 02000 - 02500 | 034 | 0.2000 | - 02500 | 0 0 0 0 0 0 | 00900 | 00220 | 580 600 | 00700 | - 00200 | 091 | 0000 0000 0000 | 00000 | 6 11 11 |
| 0000 - 00300 | | 0020 | | | | 0000 | ž | 02000 | 0000 | 650 | | | Ş |
| 03000 - 03200 | 260 200 200 200 200 200 200 200 200 200 | 03000 | 03200 | 048 | 00600 | 01030 | 042 | 00300 | - 00350 | 054 | 200 | 01400 | . 10 10 10 10 10 10 10 10 10 10 10 10 10 1 |
| ı | | 03200 | - 04000 | | 01050 | 01200 | 032 | 00320 | - 00400 | 024 | 01400 | - 01600 | 057 |
| 1 | | 04000 | - 04500 | | 01200 - | 01350 | 920 | 00400 | - 00200 | ₽90 | 01600 | - 01800 | 046 |
| 00090 - 00050 | 045 | 04300 | 02000 | 024 | - 01320 - | 01200 | 018 | 00200 | 00900 - | 043 | 01800 | - 02000 | 032 |
| , | 029 | 02000 | 00090 - | 048 | - 01200 | 01650 | 910 | 00900 | - 00700 | 045 | 02000 | - 02250 | 043 |
| 1 | | 00090 | - 07000 | | - 05910 | 01800 | 910 | 00200 | - 00300 | 032 | 02220 | - 02200 | 024 |
| ı | | 02000 | 00080 - | _ | 01800 | 02000 | 029 | 00800 | 00600 - | 032 | 05200 | 03000 | 054 |
| 15000 - 25000 | 2 % 2 % | 2000 | 10000 | 051 | 02000 | 02200 | 040 | 00300 | 1 01000 | 010 | 9 9 9 | 03300 | 043 |
| | | - | | | 200-20 | | : | | 2012 | ? | 2 | 2000 | 750 |
| ı | | 15000 | - 20000 | | - 00000 | 04000 | 026 | 01250 | - 01500 | 035 | 04000 | - 02000 | 043 |
| ı | | 20000 | 30000 | | 04000 - | 00090 | 021 | 01200 | - 02000 | 620 | 02000 | - 02000 | 021 |
| ı | | 30000 | 40000 | | - 00090 | 10000 | 810 | 05000 | - 03000 | 018 | 0000 | 00060 - | 016 |
| 800001 - 100008 | | 40000 | 0000£ | 000 | 100001 | 20000 | 8 | 0.3000 | 00090 - | 021 | 00060 | - 12000 | 000 |
| >100000 | 000 | 20000 | 000 | 000 | > 20000 | | 8 | 00090 < | 00 | 000 | > 12000 | 000 | 000 |
| NO OF MEASUR | +00376 | NO 05 | NO OF MEASUR. | +00368 | NO OF MEASUR | SUR. | +00373 | NO OF MEASUR | EASUR | +00370 | NO OF 1 | MEASUR. | +00368 |
| MEAN [X10E-2] | 23 +07511 | MEAN | [X10E-2] | +05299 | MEAN CX | [X10E-3] | +0004 | FER | EX10E-43 | +00518 | MEAN | [X10E-5] | +01680 |
| SIGMA [X10E-2] | 11 +10544 | SIGMA | [X10E-2] | +06203 | SIGMA CX | (X10E-3) | +01301 | SIGMA | CX10E-43 | +00645 | STOMA | (X10E-53 | +01319 |
| | | | | | | | | | | | | | |
| | | | | | | | | | | , | | | |

TABLE: 17 GARMISCH (VALLEY 740 M)

| ¥ | |
|------------|--|
| POLAR | |
| TYPE: | |
| | |
| MASS | |
| AIR | |
| FER | |
| PARAMETER= | |
| 4 | |

| DI = 0.23 MI | | D2 = 0.45 MI | | D3 = 0.93 MI | | D4 = 2.00 HI | | DS = 4, 50 HI | |
|---|--|--|-----------------------|---|---|---|---------------------------------|---|--|
| RES. NR : 202 | | RES. NR.: 203 | | RES. NR. : 204 | | RES. NR.: 205 | | RES. NR. : 206 | |
| PARTICL. CONC FR [X10E-2] [1 | FREGUENCY | PARTICL. CONC. EX10E-21 | FREGUENCY [1/10 %] | PARTICL. CONC. [X10E-3] | FREGUENCY [1/10 X] | PARTICL. CONC. FF [X10E-4] [1 | FREGUENCY [1/10 %] | PARTICL. CONC. [X10E-5] | FREGUENCY [1/10 %] |
| 00500 00500 - 01000 01000 - 01500 01500 - 01500 01500 - 02500 | 052 052 052 053 | 00500 00500 00500 01000 01000 01500 02000 02000 | 000 | C 00150 00150 - 00300 00300 - 00450 00450 - 00560 | 999118 | C 00050 00050 - 00100 00100 - 00150 00150 - 00250 | 8888 | C 00200 00200 00200 00400 00600 00600 00600 | 000000000000000000000000000000000000000 |
| 1 1 1 1 1 | 900 105 000 052 | 1 1 1 1 1 | | 11111 | | 11111 | 000 | 11111 | |
| 06000 - 07000 07000 - 08000 08000 - 10000 10000 - 15000 15000 - 25000 | 052 000 000 210 | 05000 - 06000 06000 - 07000 07000 - 08000 08000 - 10000 10000 - 15000 | 0000 | 01500 - 01650 01650 - 01800 01800 - 02000 02000 - 02500 | 000000000000000000000000000000000000000 | 00500 - 00700 00700 - 00800 00800 - 00900 00900 - 01000 01000 - 01250 | 8 0 0 0 0 0 0 0 0 0 | 02200 - 02250 02250 - 02500 02500 - 03000 03000 - 03500 03500 - 04000 | 50 00 00 00 00 00 00 00 00 00 00 00 |
| 25000 - 40000 40000 - 60000 60000 - 80000 80000 - 100000 >100000 | 000 000 000 000 000 000 | 15000 - 20000 20000 - 30000 30000 - 40000 40000 - 50000 > 50000 | 0000 | 03000 - 04000 04000 - 06000 06000 - 10000 10000 - 20000 > 20000 | 0000 | 01250 - 01500 01500 - 02000 02000 - 03000 03000 - 06000 > 06000 | 000 000 000 000 000 | 04000 - 05000 05000 - 07000 07000 - 09000 09000 - 12000 > 12000 | 000 000 000 000 000 000 000 000 000 |
| ND OF HEASUR. HEAN (X10E-2) | £61000+ 61000+ | ND OF MEASUR. MEAN [X10E-2] | +00018 | NO OF MEASUR. MEAN [X10E-3] | +00018 | NO OF MEASUR. MEAN (X10E-4) | +00020 | NO OF MEASUR MEAN (X10E-5) | +00017 |
| | | | | | 1 | | 0.00 | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 18
GARMISCH (VALLEY 740 M)
PARAMETER= AIR MASS TYPE: POLAR-CONTINENTAL

| DI = 0.23 HI | | B 2 • 0 | D2 = 0. 45 HI | | D3 = 6. 93 HI | H H | | D4 = 2. 00 HI | | | DS = 4.50 HI | IM 0 | |
|---|---|---|---|---------------------------------|---|---|---|--|----------------------------------|----------------------------------|---|---|--|
| RES. NR. : 217 | | RES. NR. : | .: 218 | | RES. NR. | 219 | | RES. NR. : | 220 | | RES. MR. : | 221 | |
| PARTICL. CONC. FR (X10E-2) [1 | FREGUENCY | PARTIC | PARTICL. CONC. F | FREQUENCY | PARTICL, CONC. EX10E-31 | _ | FREQUENCY | PARTICL. CONC. [X10E-4] | NC. FREGUENCY 1 (1/10 X) | | PARTICL, CONC. [X10E-5] | | FREGUENCY [1/10 %] |
| 00500 00500 - 01000 01000 - 01500 01500 - 02000 02000 | 000000000000000000000000000000000000000 | C 00500 00500 - 01000 - 01500 - 02000 - | 500 - 01000 - 01500 - 02000 - 02500 | 00000 | - 00120 - 00130 - 00420 - 00420 | 00300 00450 00450 00750 | \$4 \$4 \$4 \$4 | 00050 00050 - 0 00100 - 00150 - 0 | 00100 00150 00200 | 00000 | C 00200 00200 - 00400 - 00600 - | 00400 00400 00800 01000 | 000 120 040 080 |
| 02500 - 03000 03000 - 03500 03500 - 04000 04000 - 05000 05000 - 06000 | 041 000 000 093 | 02500 03000 03500 04000 | - 03000 - 04500 - 05000 | 000 040 000 080 120 | 00750 00900 01050 01200 | 00900 01050 01200 01350 | 000 000 000 000 000 000 000 000 000 | 00250 00300 00350 1 00400 1 | 00350 00350 00400 00500 | 00000 | 01000 01200 01400 01600 | 01200 01400 01600 01800 02000 | 00000000000000000000000000000000000000 |
| 06000 - 07000 07000 - 08000 08000 - 10000 10000 - 15000 15000 - 25000 | 000 250 208 208 | 05000 06000 07000 08000 | - 06000 - 07000 - 08000 - 10000 | 0000 | 01500 01650 01800 02000 | 01650 01800 02000 02500 03000 | 047 000 190 142 | 000000 | 00700 00800 00900 01000 | 040 040 000 000 000 | 02000 - 02250 - 02500 - 03000 - 03500 | 02250 02300 03500 03500 | 000 160 040 000 |
| 25000 40000 40000 60000 60000 80000 80000 100000 >100000 | 000 000 000 000 | 15000 - 20000 - 30000 - 40000 - > 50000 | - 20000 - 30000 - 40000 - 5000 | 150 000 000 000 | 03000 - 04000 - 06000 - 10000 - > 20000 | 04000 06000 10000 20000 | 000 000 000 000 | 01250 - 01500 - 02000 - 03000 - 0 | 01500 02000 03000 06000 | 1160 200 200 000 000 | 04000 - 05000 - 07000 - 09000 - > 12000 | 05000 07000 09000 12000 | 160 040 000 000 |
| NO OF MEASUR. MEAN (X10E-2) | +00024 | NO OF | NO OF HEASUR. MEAN [X10E-2] | +00025 | NO OF MEASUR MEAN (X10E | EASUR. [X10E-3] | +00021 | NO OF MEASUR | Ŧ | +00025 | ND OF PEASUR HEAN (X106) | EASUR. [X10E-5] | +00025 |
| SIOHA [X10E-2] | +13868 | SIGHA | [X10E-2] | +09895 | KJ WOIS | [X10E-3] | +01635 | STOMA EXE | EX10E-43 +01 | +01062 | SIGHA LIX | [X10E-5] | +02265 |

GARMISCH (VALLEY 740 M) TABLE: 19

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| D1 = 0.23 HI | | D2 = 0.45 MI | | D3 = 0.93 MI | ĭ | 5 | 2. 00 HI | | DS = 4. 50 HI | |
|--|---------------------------------|---|---------------------------------|--|--|---|---|--------------------------|---|-----------------------|
| RES. WR.: 232 | | RES. NR. : 233 | | RES. NR. : | 234 | RES. NR. : | R.: 235 | | RES. NR. : 236 | |
| PARTICL CONC. FI | FREQUENCY | PARTICL. CONC. F EX10E-23 E | FREQUENCY | PARTICL. CONC. [X10E-3] | NC. FREQUENCY | | PARTICL. CONC. FI | FREGUENCY [1/10 X] | PARTICL. CONC. [X10E-5] | FREGUENCY [1/10 %] |
| 93.00 | 1111 100 078 098 | 020 | 083 137 124 080 | 0130 | • | 888 | 020 | 061 072 076 044 | 0200 | |
| 02500 - 02500 03000 - 03500 03500 - 04000 04000 - 05000 05000 - 06000 | 063 029 050 050 | 02500 - 02500 03000 - 03500 03500 - 04000 04000 - 04500 04500 - 05000 | • | 000750 - 000750 - 01050 - 01250 - 01350 - 0150 | 00/30 083 00/30 00/30 00/30 00/30 00/30 00/80 00 | 00250 00350 00350 00400 00500 | - 00250 - 00350 - 00350 - 00500 - 00500 | 050 050 057 089 | 01000 - 01000 01200 - 01400 01400 - 01600 01600 - 01800 01800 - 02000 | 050 |
| 06000 - 07000 07000 - 08000 08000, - 10000 10000 - 15000 15000 - 25000 | 038 027 054 054 | 0500006000 06000 - 07000 07000 - 08000 08000 - 10000 10000 | 063 022 027 027 061 | 01500 - 01650 - 01800 - 02000 - 02500 | 01650 012 01800 029 02000 016 02500 047 03000 035 | 00500 00700 00900 01000 | - 00700 - 00800 - 00900 - 01000 | 052 052 033 071 | 02000 - 02250 02250 - 02500 02500 - 03000 03000 - 03500 03500 - 04000 | 0.000 |
| 25000 - 40000 40000 - 60000 60000 - 80000 80000 - 100000 >100000 | 031 000 000 000 000 | 15000 - 20000 20000 - 30000 30000 - 40000 40000 - 50000 > 50000 | 027 031 011 000 | 03000 - 04000 - 06000 - 100000 - 10000 - 10000 - 10000 - 10000 - 10000 - 10000 - 10000 - 100000 - 10000 - 10000 - 10000 - 10000 - 100000 - 100000 - 10000 - 10000 - 10000 - 10000 - 10000 - 10000 - 10000 - 10000 - 10000 - 10 | 04000 023 06000 025 10000 020 20000 000 | 000 | 250 - 01500 500 - 02000 000 - 03000 000 - 06000 > 06000 | 035 039 013 000 | 04000 - 05000 05000 - 07000 07000 - 09000 09000 - 12000 > 12000 | 0000 |
| NO OF MEASUR. MEAN [X10E-2] | +00548 | NO OF MEASUR. MEAN [X10E-2] | +60537 | NO OF MEASUR | EASUR +00542 [X10E-3] +01087 | | NO OF MEASUR. MEAN [X10E-4] | +00535 | NO OF MEASUR. MEAN (X10E-5) | +00527 |
| SIGNA [X10E-2] | +08918 | SIGMA [XIOE-2] | +06093 | SIGMA CXI | [XIOE-3] +01354 | SIGMA | [X10E-4] | +00620 | SIGMA (X10E-5) | 1 +01769 |

TABLE: 20 .GARMISCH (VALLEY 740 M)
PARAMETER≈ AIR MASS TYPE: CONTINENTAL

| D1 = 0.23 HI | | D2 = 0. 45 MI | | D3 = 0.93 MI | | D4 = 2. 00 MI | | D5 = 4. 50 MI | |
|---|---------------------------------|---|----------------------------------|---|---------------------------------|--|---------------------------------|---|--------------------------------------|
| RES. NR. : 247 | | RES. NR.: 248 | · | RES. NR.: 249 | | RES. NR. : 250 | = | RES. NR. : 251 | |
| PARTICL COMC. FI | FREGUENCY [1/10 X] | PARTICL. CONC. (X10E-2) | FREGNENCY [1/10 x] | PARTICL. CONC. (| FREQUENCY | PARTICL. CONC. FRE [X10E-4] [1/ | FREQUENCY [1/10 X] | PARTICL. CONC. CX10E-53 | FREGUENCY [1/10 %] |
| 00500 00500 01000 01000 01500 02000 02000 | 026 073 046 073 | 00500 00500 01000 01000 01500 02000 02000 | 0 006 0 083 0 076 | C 00150 00150 - 00300 00300 - 00450 00450 - 00600 | 027 102 061 034 047 | 00050 00050 00100 00150 00200 00250 | 064 028 030 035 | C 00200 00200 - 00400 00400 - 00600 00600 - 00800 00800 - 01000 | 006 0013 0076 0076 |
| 02500 - 03000 03000 - 03500 03500 - 04000 04000 - 05000 05000 - 06000 | 026 046 050 050 | 02500 - 03000 03000 - 03500 03500 - 04000 04000 - 04500 | 0 055 0 062 0 034 0 034 | 00750 - 00900 00900 - 01050 01050 - 01200 01200 - 01350 01350 - 01500 | 047 068 068 050 | 00250 - 00300 00300 - 00350 00350 - 00400 00400 - 00500 00500 - 00600 | 028 007 050 035 057 | 01000 - 01200 01200 - 01400 01400 - 01600 01600 - 01800 01800 - 02000 | 00 020 00 048 00 069 00 034 |
| 06000 - 07000 07000 - 08000 08000 - 10000 10000 - 15000 15000 - 25000 | 020 013 100 086 140 | 05000 - 06000 06000 - 07000 07000 - 08000 08000 - 10000 10000 - 15000 | 0 027 0 055 0 034 0 111 | 01500 - 01650 01650 - 01800 01800 - 02000 02000 - 02500 02500 - 03000 | 047 040 020 068 | 00600 - 00700 00700 - 00800 00800 - 00900 00900 - 01000 01000 - 01250 | 035 035 071 042 078 | 02250 - 02250 02250 - 02500 02500 - 03000 03000 - 03500 | 00 062 00 034 00 041 00 083 |
| 25000 - 40000 40000 - 60000 60000 - 80000 80000 - 100000 >100000 | 044 044 000 000 000 | 15000 - 20000 20000 - 30000 30000 - 40000 40000 - 50000 > 50000 | 0000 | 03000 - 04000 04000 - 06000 06000 - 10000 10000 - 20000 > 20000 | 074 108 009 000 | 01250 - 01500 01500 - 02000 02000 - 03000 03000 - 06000 > 06000 | 071 121 107 050 000 | 04000 - 05000 05000 - 07000 07000 - 09000 09000 - 12000 > 12000 | . 083 000 000 000 000 |
| NO OF HEASUR. HEAN (X106-2) SIGNA (X106-2) | +10074 | ND OF MEASUR. MEAN (X10E-2. SIGMA (X10E-2. | +00144 | NO OF MEASUR. MEAN (X10E-3) SIGNA (X10E-3) | +00147 | NO OF MEASUR. + MEAN (XIOE-4) + SIGNA (XIOE-4) + | +00140 | NO OF MEASUR. MEAN (X10E-51 SIGMA (X10E-51 | +00144 i3 +02912 i3 +02041 |

TABLE: 21 GARMISCH (VALLEY 740 M)

PERIOD: 1970-1980

PARAMETER= AIR MASS TYPE: TROPICAL-MARITIME

| RES. NR.: 262 RES. NR.: 263 RES. NR.: 264 RES. NR.: RES. NR.: RES. NR.: 264 RES. NR.: RES. NR.:< | DI = 0.23 MI | | D2 = 0. | 45 HI | | D3 = 0.93 MI | 23 AI | | D4 = 2, | = 2, 00 HI | | DS = 4.50 HI | 50 MI | |
|--|--------------|----------------------------------|---|--|--------------------------|--|----------------------------------|---------------------------------|---|--|--------------------------|---|---|---------------------------------|
| T. CONC. FREQUENCY PARTICL. CONC. FREQUENCY (TITOE -3) (1/10 X) [K10E-4] (TIVIO X) [TIVIO X) [TIVIO X) [TIVIO X) [TIVIO X) [TIVIO X) [TIVIO X) [TI | | <u> </u> | RES. NR. | | | RES. NR. : | | | RES. NR. | | | RES. NR. : | : 266 | |
| 140 C 00500 140 C 00500 149 00150 1030 115 C 00050 1 | | GUENCY 10 X1 | PARTICI [X10 | | REQUENCY | PARTICL. CX106 | _ | REQUENCY | PARTICI CX10 | _ | FREGUENCY [1/10 %] | PARTICL. CONC. [X10E-5] | | FREGUENCY [1/10 %] |
| 0 = 03000 094 02500 - 03000 070 00750 - 01050 0350 - 01050 0350 - 01050 0350 - 01050 0350 - 01050 0350 - 01050 0350 - 01050 0350 - 01050 0350 - 01050 0350 - 01050 0350 - 01050 0350 - 01050 0350 - 01050 0350 - 01050 0350 - 01060 035 - 01060 | 8 1 1 t 1 | 140 105 122 078 070 | 00500 01000 01500 02000 | | 070 149 087 114 | 00150 00150 00300 00450 | | 115 132 061 044 | 00050 00150 00150 00150 | 00100 - 00100 - 00150 - 00200 | 053 053 044 017 | 0020000200004000060000800 | 00400 - 00600 - 00800 - 00800 - 00800 - 00800 - 000000 - 0000000 - 000000 - 000000 - 000000 | 000 009 073 082 |
| 0 - 07000 035 05000 - 06000 055 01500 - 0165 0070 0 | 1111 | 096 017 035 035 035 | 02500 03500 03500 04000 | | | 00750 - 00900 - 01050 - 01200 - 01350 - | 00900 01050 01200 01350 | 097 035 041 035 | 00250 00300 00350 00460 00500 | - 00300 - 00350 - 00400 - 00500 | 000 053 053 053 | 01200 01400 01600 01800 | - 01200 - 01400 - 01600 - 01800 | 110 137 045 045 |
| 0 - 40000 026 15000 - 20000 026 03000 - 04000 026 01250 - 05000 053 01500 - 05000 053 01500 - 05000 - 05000 053 01500 - 050000 - 050000 - 05000 | 11111 | 035 035 043 052 | 05000 06000 07000 08000 10000 | - 06000 - 07000 - 10000 - 15000 | | 01500 - 01650 - 01800 - 02000 - | 01650 01800 02500 03500 | 026 026 026 044 061 | 00700 00800 00300 01000 | - 00700 - 00800 - 00900 - 01000 | 053 044 017 053 | 02000 02250 02500 03000 | - 02250 - 02500 - 03000 - 03500 - 04000 | 027 073 073 009 |
| ** NEASUR. +00114 NO OF MEASUR. +00114 NO OF MEASUR. +00113 NO OF M | 111.00 | 95 9 000 000 000 | 15000 20000 30000 40000 > 500 | - · · · · · - · | 026 026 000 000 | 0.3000 - 0.4000 - 0.6000 - 1.0000 - | | 026 053 000 000 | 01250 01500 02000 03000 > 060 | - 01500 - 02000 - 03000 - 06000 | 079 106 088 035 | 04000 - 05000 - 07000 - 09000 - 09000 - 09000 - 09000 - 09000 - 09000 - 09000 - 09000 - 09000 - 09000 | - 05000 - 07000 - 09000 - 12000 | 000 000 000 000 000 |
| | -21 | +00114 | NO OF P | FASUR. [X10E-2] [X10E-2] | +04853 | NO OF MEAN (SIGMA (| EASIJR. [X10E-3] [X10E-3] | +00113 | NO OF P | FASUR. [X10E-4] [X10E-4] | +00113 | NO OF PEASUR MEAN (X10E SIGNA (X10E | EASUR. [X10E-5] [X10E-5] | +00109 |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 22 WANK PEAK 1780 M

| | MI DS = 4. 50 MI | 195 RES. NR.: 196 | ONC. FREGUENCY PARTICL, CONC. FREGUENCY 41 [1/10 X] [X10E-5] [1/10 X] | | 144 00050 - 00076 | 00100 109 00076 - 00100 058 00125 067 00100 - 00125 064 | 00150 067 00125 - 00150 036 | 032 00175 - 00175 | 00250 - 00250 | 00350 029 00300 - 00350 101 | 014 00350 - 00400 | 00450 026 00400 - 00450 030 | 032 00500 - 00600 | 00700 020 00600 - 00700 049 | 029 00700 - 01000 | 02000 0200 01000 - 02000 061 | 000 > 04000 | SUR. +60339 NO OF MEASUR. +00325 | 1X10E-41 +00191 MEAN [X10E-5] +00407 | [XIOE-4] +00244 SIGNA [XIOE-5] +00344 | |
|----------------|------------------|-------------------|---|------------------|---------------------|--|-----------------------------|-------------------|---------------|-----------------------------|-------------------|-----------------------------|-------------------|-----------------------------|-------------------|------------------------------|-------------|----------------------------------|--|---------------------------------------|---|
| | D4 = 2.00 HI | KES, NR. : | PARTICL. CONC. [X10E-4] | < 00025 | | - 00100 | 00125 - | 00175 | 00200 - | 00300 | 00320 - | 00400 | 00200 | - 00900 | 00200 | 01000 | 2 | NO OF MEASUR. | MEAN LX | SIGNA LX | |
| | | | FREQUENCY | 064 | 073 | 052 | 070 | 020 | 050 052 | 020 | 023 | 041 | 064 | 041 | 020 | 014 | 88 | +00340 | +00400+ | +00495 | |
| | 0. 93 MI | R.: 194 | PARTICL. CONC. FI | 0025 | 1 | - 00100 | - 00200 | 00300 - | - 00350 | - 00450 | ı | 00900 - | 1 1 | - 01500 | ı | 03200 | 2000 | NO OF MEASUR. | [X10E-31 | (X10E-31 | |
| TIME | D3 = 0 | RES. NR. : | PARTIC [X1 | < 00025 00035 | 00020 | 00076 | 00120 | 00250 | 00300 | 00400 | 00450 | 00200 | 00200 | 01000 | 01500 | 02000 | 00000 < | NO 05 | MEAN | SIGMA | |
| POLAR-MARITIME | | | FREQUENCY | 10.5 | 071 | 023 044 | 023 | 90 | 113 | 038 | 032 | 056 | 068 | 033 | 029 | 029 | 88 | +00336 | +02420 | +03192 | |
| - 1 | 45 HI | : 193 | _ | | | - 00400 | 00900 - | 01000 | - 01300 | - 02500 | - 03000 | 04000 | - 07000 | - 09000 | - 12000 | 12000 | | EASUR. | [X10E-2] | [X10E-2] | |
| SS TYPE: | D2 = 0.45 HI | RES. NR. : | PARTICL. CONC. [X10E-2] | 00100 | | 00300 | 00500 | 00750 | 01000 | 03000 | 02200 | 03000 | 02000 | 00000 | | 2000 | 8 | NO OF MEASUR. | MEAN | SIOMA | _ |
| AIR MASS | | | FREGUENCY [1/10 %] | 058 | 103 | 020 | 079 | 023 | 032 | 160 | 085 | Ç\$3 | 3 | 017 | 038 | 38 | 88 | +00333 | +01939 | 18310+ | |
| PARAMETER= | # 0.23 HI | : 192 | | 90,00 | - | - 00800 - 01000 | 01200 | 00910 - | - 01800 | 05200 - | - 03000 | - 03500 | _ | - 06000 | • | 0000 | | EASUR. | [X10E-2] | [X10E-23 | |
| PARAI | 0 = 10 | RES NR : | PARTICL. CONC. [X10E-2] | < 00200 - | | 00900 | 01000 | | 01600 | 05000 | 02200 | 03000 | | 02000 | | 0000 | ည္က | NO OF MEASUR | HE AS | SIGNA | , |

TABLE: 23

WANK PEAK 1780 M

PERIOD: 1970-1980

PARAMETER= AIR MASS TYPE: POLAR

| DI = 0. 23 HI | | D2 = 0 | D2 = 0. 45 HI | | D3 = 0.93 ME | Ï | | 04 = 2.0 | 2. 00 MI | | B3 * | 4. 50 HI | |
|---|---|---|--|---------------------------------|---|---|--------------------------|---|--|---------------------------------|--|--|---------------------------------|
| RES. NR : 207 | | RES. NR. : | 8: 208 | | RES. NR. : | 209 | | RES. NR. | 210 | | RES. NR. : | : 211 | |
| PARTICL COM: FRE [X10E-2] [1/ | FREGUENCY [1/10 %] | PARTIC EX1 | PARTICL. CONC. F | FREGUENCY [1/10 x] | PARTICL CONC. [X10E-3] | | FREQUENCY [1/10 %] | PARTICL, CONC. [X10E-4] | | FREGUENCY [1/10 x] | PARTICL. CONC. [X10E-5] | | FREGUENCY |
| C 00200 00200 00400 00400 00600 00800 00800 | 000000000000000000000000000000000000000 | C 6010000100002000030000400 | - 00200 - 00300 - 00400 - 00400 | 166 053 222 000 000 | <pre></pre> | 5 00050 00076 00100 00150 | 058 058 058 058 | C 00025 00025 00050 00076 | 25 - 00050 - 00076 - 00100 - 00125 | 000 105 000 157 | 00025 00050 00076 00100 | 25 - 00050 - 00076 - 00100 - 00125 | 00000 |
| 01000 - 01200 01200 - 01400 01400 - 01600 01600 - 01800 01800 - 02000 | 000 150 050 050 | 00500 00600 00750 01000 01500 | - 00500 - 00750 - 01000 - 01500 | 000 000 000 000 000 | 00150 00200 00250 00300 00350 | 00200 00250 00300 00350 00400 | 176 058 000 000 | 00125 00150 00175 00200 00250 | 00150 00175 00200 00250 | 052 052 052 157 052 | 00125 00150 00175 00220 00250 | - 00150 - 00175 - 00200 - 00250 | 0000=== |
| 02000 - 02500 02500 - 03600 03000 - 03500 03500 - 04000 04000 - 05000 | 020 100 000 000 | 02000 02500 03000 04000 | - 02500 - 03000 - 04000 - 05000 | 000 | 00400 00450 00500 00600 | 00450 00500 00600 00700 | 000 | 00300 00350 00400 00500 | - 00350 - 00400 - 00500 - 00500 | 052 052 000 000 105 | 00300 00350 00450 00500 | - 00350 - 00400 - 00500 - 00500 | 222 111 055 055 055 |
| 05000 - 06000 06000 - 08000 08000 - 10000 10000 - 15000 > 15000 | 00000 | 07000 09000 12000 15000 > 20000 | - 12000 - 12000 - 15000 - 20000 | 000 000 000 000 000 | 01000 01500 02000 03500 | 01500 02000 03500 06000 | 058 058 000 000 | 00600 - 00700 - 01000 - 02000 - > 04000 | - 00700 - 01000 - 02000 - 04000 | 052 105 000 000 | 00600 - 00700 - 01000 - 02000 - > 04000 | - 00700 - 01000 - 02000 - 04000 | 055 111 111 000 |
| NO OF HEASUR. MEAN [X10E-2] | +01823 | NO OF | NO OF MEASUR. MEAN [X10E-2] | +00018 | NO OF MEAN | MEASUR. [X10E-3] | +00017 | Σ | MEASUR. [X10E-4] | +00019 | Σ | MEASUR [X10E-5] | +00507 |
| | | 5 | 77 30101 | | - 1 | 16-37 | 21/00/12 | Take 10 | 7 | 00200 | 5 6 | |) |

TABLE: 24 WANK PEAK 1780 M

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| D1 = 0. 23 M1 | | D2 = 0. 45 MI | | D3 = 0. 93 HI | | D4 = 2. 00 MI | | DS = 4. 50 HI | |
|---|---|---|---|---|---|--|---------------------------------|--|---|
| RES. NR. : 222 | | RES. NR. : 223 | | RES. NR. : 224 | | RES. NR. : 225 | | RE8. NR. : 226 | |
| PARTICL. CONC. [X10E-2] | FREQUENCY | PARTICL. CONC. [X10E-2] | FREQUENCY | PARTICL. CONC. FR | FREQUENCY [1/10 %] | PARTICL. CONC. FRE | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-5] | FREGUENCY [1/10 %] |
| C 00200 00200 - 00400 00400 - 00600 00600 - 00800 | 900000000000000000000000000000000000000 | C 00100 00100 - 00200 00200 - 00300 00300 - 00400 00400 - 00500 | 000000000000000000000000000000000000000 | C 00025 00025 - 00050 00050 - 00076 00076 - 00100 00100 - 00150 | 500000 5000000000000000000000000000000 | C 00025 00025 00030 00076 00100 00100 | 055 055 055 000 | C 00025 00025 - 00050 00056 - 00070 00100 - 00125 | 00050 00050 00076 00100 00125 000 |
| 01000 - 01200 01200 - 01400 01400 - 01600 01600 - 01900 01800 - 02000 | 28228 | 00500 - 00600 00600 - 00750 00750 - 01000 01000 - 01500 01500 - 02000 | 82888 | 00150 - 00200 00200 - 00250 00250 - 00300 00300 - 00350 00350 - 00400 | 00000000000000000000000000000000000000 | 00125 - 00150 00150 - 00175 00175 - 00200 00200 - 00250 00250 - 00300 | 033 033 000 166 | 00128 - 00100 00178 - 00000 00178 - 00000 00000 00000 00000 00000 00000 0000 | 00150 000 00175 105 00200 000 00250 052 00300 052 |
| 02500 - 02500 02500 - 03000 03000 - 03500 03500 - 04000 | 00 058 00 235 00 117 00 058 | 02000 - 02500 02500 - 03000 03000 - 04000 04000 - 05000 05000 - 07000 | 00 058 00 058 00 058 00 058 | 00400 - 00450 00450 - 00500 00500 - 00600 00600 - 00700 | 000 166 166 166 | 00300 - 00350 00350 - 00400 00400 - 00450 00450 - 00500 00500 - 00600 | 055 111 111 055 055 | 00300 - 00350 00350 - 00400 00450 - 00450 00450 - 00500 | 00350 000 00400 1157 00450 105 00500 000 |
| 05000 - 06000 06000 - 08000 08000 - 10000 10000 - 15000 | 000 000 000 000 000 000 | 07000 - 09000 09000 - 12000 12000 - 15000 15000 - 20000 > 20000 | 000 000 000 000 | 01000 - 01500 01500 - 02'00 02000 - 03500 03500 - >6000 > 06000 | n 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 00600 - 00700 00700 - 01000 01000 - 02000 02000 - 04000 > 04000 | 0000 | 00600 - 00700 00700 - 01000 01000 - 02000 02000 - 04000 | 00700 052 01000 210 02000 157 04000 052 |
| NO OF MEASUR. MEAN (X10E-2) SIGMA (X10E-2) | +00017 23 +03820 23 +02866 | NO OF MEASUR. HEAN (X10E-2) SIGNA (X10E-2) | +00017 23 +05558 21 +04889 | NO OF MEASUR. MEAN [X10E-3] SIGNA [X10E-3] | +00018 | NO OF MEASUR. MEAN [X10E-4] SIGNA [X10E-4] | +00018 +00376 +00344 | ND OF MEASUR. MEAN [X10E-5] SIGMA [X10E-5] | +00019 -5.1 +00736 -5.1 +00581 |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 25 WANK PEAK 1780 M

| | 1 | | FREGUENCY | 004 021 052 052 | 037 043 050 087 074 | 076 052 056 043 094 | 045 102 076 000 | +00457 |
|------------|---------------|----------|---------------------------------|---|---|---|---|---|
| | DS = 4. 50 HE | 8 : 241 | PARTICL. CONC. FI [X10E-5] [| 0025 - 00050 - 00076 - 00100 - 00125 | - 00130 - 00175 - 00200 - 00250 | 00350 1 00400 1 00450 1 00500 | - 00700 - 01000 - 02000 - 04000 | MEASUR. [X10E-5] [X10E-5] |
| | 8 | RES. NR. | PARTIC | <pre></pre> | 00125 00150 00175 00200 00250 | 0030 00350 00450 00550 | 00600 - 00700 - 01000 - 02000 - > 04000 | ND OF |
| | | | FREGUENCY | 125 140 078 065 | 051 046 046 072 055 | 036 025 040 040 | 023 034 000 000 | +00470 |
| | 2. 00 HI | : 240 | |)25 - 00050 - 00076 - 00100 - 00125 | - 00150 - 00175 - 00200 - 00250 - 00300 | - 00350 - 00400 - 00450 - 00500 - 00500 | - 00700 - 01000 - 02000 - 04000 | MEASUR [X10E-4] [X10E-4] |
| | D4 = 2 | RES. NR. | PARTICL. CONC [X10E-4] | <pre></pre> | 00125 00130 00175 00200 00250 | 00300 00350 00450 00500 | 00600 - 00700 - 01000 - 02000 - > 04000 | NO OF P |
| | | | FREQUENCY | 068 074 069 059 | 079 049 053 019 | 025 034 055 027 | 070 036 051 000 | +00468 |
| | ■ 0. 93 MI | : 239 | | 255 - 00050 - 00076 - 00100 - 00150 | - 00200 - 00250 - 00300 - 00350 | - 00450 - 00500 - 00600 - 00700 | - 01500 - 02000 - 03500 - 06000 | MEASUR. [X10E-3] [X10E-3] |
| | D3 = 0. | RES. NR. | PARTICL. CONC [X10E-3] | <pre></pre> | 00150 00200 00250 00300 00350 | 00400 00450 00500 00600 | 01000 - 01500 - 02000 - 03500 - > 06000 | NO OF MEASUR MEAN (X10E SIGMA (X10E |
| TIME | | | FREQUENCY | 116 095 082 043 058 | 041 056 064 086 086 | 043 036 038 053 | 030 | +00463 |
| MARITIME | = 0. 45 HI | . 238 | _ | 00 - 00200 - 00400 - 00500 | - 00000 - 00750 - 01000 - 01500 | - 02500 - 03000 - 04000 - 05000 | - 09000 - 12000 - 15000 - 20000 | EASUR. [X10E-2] [X10E-2] |
| MASS TYPE: | D2 = 0. | RES. NR | PARTICL. CONC. EXIOE-21 | 0010000100002000030000400 | 00500 00600 00750 01000 | 02000 02500 03000 04000 | 07000 - 09000 - 12000 - 15000 - > 20000 | ND OF MEASUR MEAN TX10E SIGNA TX10E |
| AIR MA | | | FREQUENCY [1/10 X] | 060 094 109 096 079 | 062 058 043 043 | 064 043 055 036 | 025 025 021 000 | +00465 |
| PARAMETER= | ■ 0. 23 MI | : 237 | | 00400 - 00400 - 00600 - 00800 - 01000 | - 01200 - 01400 - 01600 - 01800 - 02000 | - 02500 - 03000 - 03500 - 04000 - 05000 | - 06000 - 06000 - 10000 - 15000 | EASIR [X10E-2] |
| PARA | 0 = 0 | RES. NR. | PARTICL. CONC. [X10E-2] | 00200002000040000600 | 01200 01200 01400 01600 | 02000 02500 03000 04000 | 05000 - 06000 - 08000 - 10000 - > 15000 | NO OF PEASIR PEAN (X106 SIGMA (X106 |

TABLE: 26

MANK PEAK 1780 M
PARAMETER= AIR MASS TYPE: CONTINENTAL

| D1 = 0 2 | 23 HI | | D2 = 0 | D2 = 0. 45 MI | | D3 = 0.93 MI | 93 MI | | D4 = 2 | 2. 00 MI | | 8 1 | = 4.50 HI | |
|---------------|----------|--|---------------|--------------------------------|-----------------------|----------------------------|------------|-----------------------|----------------------------|----------|-----------------------|----------------------------|-----------|-----------------------|
| RES NR | 252 | ************************************** | RES. NR. : | . : 253 | • | RES. NR. | . 254 | | RES. NR. | : 255 | | RES. NR. | . 256 | |
| PARTICL. CONC | | FREGUENCY [1/10 X] | PARTIC [X1 | PARTICL. CONC. F [X10E-2] [| FREGUENCY [1/10 %] | PARTICL. CONC. [X10E-3] | | FREWJENCY [1/10 X] | PARTICL. CONC. [X10E-4] | - | FREGUENCY (1/10 X) | PARTICL. CONC. [X10E-5] | | FREGUENCY [1/10 %] |
| < 00200 | | 02.3 | 00100 > | | 084 | < 00025 | 25 | 078 | < 00025 | 25 | 112 | < 00025 | 25 | 000 |
| 00200 | 90400 | 102 | 865 | - 00200 | 042 | 00023 | - 000030 | 946 | 00025 | - 000030 | 080 | 00025 | | |
| | 00800 | 986 | 00300 | 0040 | 033 | 92000 | 90100 - | 062 | 9000 | 00100 | 032 | 9003 9003 9003 | 1 0000 | 046 |
| - 00800 | 01000 | 033 | 00400 | - 00300 | 042 | 00100 | - 00120 | 020 | 00100 | - 00125 | 048 | 00100 | - 00125 | 073 |
| - 00010 | 01200 | 039 | 00200 | 00900 - | 910 | 00120 | - 00200 | 039 | 00125 | - 00150 | 048 | 00125 | - 00120 | 160 |
| 01200 | 01400 | 055 | 00900 | - 00750 | 910 | 00200 | - 00250 | 015 | 05100 | - 00175 | 024 | 00120 | - 00175 | |
| 1 00710 | 01600 | \$ 60 60 60 | 00750 | 000000 | 025 | 00250 | 00300 | 031 | 20173 20173 | - 00200 | 910 | 80173 80173 | 00200 | 0.31 |
| - 00810 | 02000 | 070 | 01200 | - 02000 | 067 | 00320 | | 013 | 00220 | | 9 6 | 00220 | 1 00300 | |
| - 02000 | 02200 | 094 | 02000 | - 02500 | 030 | 00400 | - 00450 | 046 | 00300 | - 00320 | 048 | 00300 | - 00320 | 031 |
| 02500 - | 00000 | 023 | 02200 | 03000 | 023 | 00420 | - 00200 | 004 | 00320 | - 00400 | 036 | 00320 | - 60400 | |
| 03500 | 03300 | 040 | 03000 | 0000 | 101 | 00200 | 00000 | 033 | 00400 | - 00450 | 040 | 8 | 00430 | 00 G |
| 04000 - | 02000 | 0.33 | 02000 | - 07000 | 9:1 | 00200 | | 179 | 0000 | 00900 - | 9 6 | 00200 | 00900 | |
| - 00050 | 06090 | 980 | 00000 | - 09000 | 020 | 01000 | - 01500 | 280 | 00900 | - 00700 | 048 | 00900 | - 00700 | 690 |
| - 00090 | 09000 | 003 | 00060 | - 12000 | 050 | | - 02000 | 054 | 00200 | 00010 - | 960 | 00200 | - 01000 | |
| 00001 | | 8 | 0000 | 1,000 | 200 | 02000 | 003200 | r 6 | 01000 | 02000 | 960 | 00 6 00 6 00 6 | 05000 | <u>3</u> |
| > 15000 | | 000 | > 20000 | | 8 | 00090 < | | 8 8 | > 04000 | | 88 | > 04000 | | 88 |
| NO OF HEASUR | ≅ | +00127 | NO OF | NO OF MEASUR. | +00118 | NO OF H | HEASUR | +00128 | NO OF H | MEASUR. | +00125 | NO OF | MEASUR. | +00129 |
| MEAN CX | [X10E-2] | +0220+ | HEAN | [X10E-2] | +03535 | MEAN | [X10E-3] | +00700 | MEAN | [X10E-4] | 96600+ | HEAN | [X10E-51 | 100573 |
| SIGNA (X) | [X10E-2] | +02318 | SIGHN | [X10E-2] | +03719 | SIGMA | [X10E-3] | +00724 | STGMA | EX10E-41 | 111004 | SIGHA | (X10E-5] | +00426 |
| | | | | | | | | | | | | | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 27 WANK PEAK 1780 M

PARAMETER= AIR MASS TYPE: TROPICAL-MARITIME

| D1 = 0, 23 HI | | 02 = 0.45 | 45 MI | | D3 ≈ 0. | O. 93 MI | | D4 = 2. | 2. 00 MI | | 8 | - 4. 30 MI | |
|---|---------------------------------|---|---|--------------------------|---|--|--------------------------|---|---|---------------------------------|---|---|--------------------------|
| RES. NR. : 267 | | RES. NR. : | . 268 | | RES. NR. | : 269 | | RES. NR. : | : 270 | | RES. NR. | .: 271 | |
| PARTICL. CONC. F | FREGUENCY | PARTICL. CONC. [X10E-2] | | FREQUENCY | PARTICL, CONC. LX10E-31 | | FREQUENCY | PARTICL. CONC. CX10E-41 | _ | FREQUENCY | PARTIC | PARTICL CONC. [X10E-5] | FREUVENCY [1/10 %] |
| C D(1200 CO200 CO400 CO400 CO600 CO600 CO600 CO600 | 077 116 077 009 038 | C 00100 00100 - 00200 - 00300 - | 100 1 00200 1 00300 1 00400 | 090 010 040 | <pre></pre> | 25 - 00050 - 00076 - 00100 - 00150 | 030 102 051 041 | 00025 00025 00050 00076 00100 | 255 - 00050 - 00076 - 00100 - 00125 | 040 040 040 | 00025 00025 00050 00076 00100 | 025 - 00050 - 00076 - 00100 - 00125 | 000 |
| 01000 - 01200 01200 - 01400 01400 - 01600 01600 - 01800 01800 - 02000 | 058 019 029 029 058 | 00500 00600 00750 01000 | - 00600 - 00750 - 01000 - 01500 - 02000 | 050 050 070 090 | 00150 00200 00250 00300 00350 | - 00200 - 00250 - 00300 - 00350 | 061 030 010 010 | 00125 00150 00175 00200 00250 | - 00150 - 00175 - 00200 - 00250 | 000 000 000 000 000 | 00125 00175 00175 00200 00250 | - 00150 - 00175 - 00200 - 00250 - 00300 | 049 029 039 059 |
| 02500 - 02500 02500 - 03000 03000 - 03500 03500 - 04000 04000 - 05000 | 077 135 087 029 038 | 02000 02500 03000 04000 | - 02500 - 03000 - 04000 - 05000 - 07000 | 040 030 040 030 | 00400 00450 00500 00600 | - 00450 - 00500 - 00600 - 00700 | 020 030 040 040 | 00300 00350 00400 00450 00500 | - 00350 - 00400 - 00450 - 00500 | 030 040 040 040 | 00300 00350 00450 00450 | - 00350 - 00450 - 00500 - 00500 | 059 059 039 039 |
| 05000 - 06000 06000 - 08000 08000 - 10000 10000 - 15000 > 15000 | 048 058 000 000 | 07000 - 09000 - 12000 - 15000 - 7 20000 | - 09000 - 12000 - 15000 - 20000 | 040 100 000 000 | 01000 - 01500 - 02000 - 03500 - | - 01500 - 02000 - 03500 - 06000 | 142 081 000 000 | 00600 00700 01000 02000 > 04000 | - 00700 - 01600 - 02000 - 04000 | 040 120 000 000 | 00600 - 00700 - 01000 - 02000 - > 04000 | - 00700 - 01000 - 02000 - 04000 | 069 128 207 000 |
| NO OF MEASUR. MEAN (XIOE-2) SIGMN (XIOE-2) | +00103 | NO OF P | MEASUR. [X10E-2] [X10E-2] | +00100 | NO OF H MEAN SIGNA | MEASUR. [X106-3] [X106-3] | +00098 +007.35 | NO OF PREAN | MEASUR. (X10E-4) (X10E-4) | +00100 | NO OF I | MEASUR. [X10E-5] [X10E-5] | +00101 |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PERIOD: 1970-1980

ZUGSPITZE PEAK 3000 M PARAMETER - AIR MASS TYPE: POLAR-MARITIME TABLE: 28

| D1 = 0, 23 MI | | D2 = 0. 45 HI | | D3 = 0.93 HI | _ | D4 = 2.00 HI | | D5 = 4, 50 H1 | |
|---|---------------------------------|--|---|---|---|---|---------------------------------|---|---------------------------------|
| RES. NR.: 197 | | RES. NR. : 198 | 6 | RES. NR. : 1 | 1% | RES. NR: : 200 | | RES. NR.: 201 | |
| PARTICL. CONC. FF [X10E-2] [1 | FREGUENCY | PARTICL. CONC. [X10E-2] | FREGUENCY [1/10 X] | PARTICL. CONC. [X10E-3] | C. FREGUENCY [1/10 %] | PARTICL. CONC. FF EX10E-41 [1 | FREGUENCY [1/10 %] | PARTICL. CONC. F | FREGUENCY [1/10 %] |
| C 00050 00050 - 00100 00100 - 00150 00150 - 00200 00200 - 00250 | 033 071 074 044 | 00015 00015 00030 00045 00046 00060 | 00030 008 00045 074 00060 064 00075 049 | C 00015 00015 - 0 00030 - 0 00045 - 0 | 058 00030 085 00045 085 00060 056 | C 00015 00015 - 00030 00045 - 00045 00045 - 00060 | 087 183 142 101 078 | 00025 00026 00050 00050 00076 00100 00100 | 011 043 049 046 |
| 00250 - 00300 00300 - 00350 00350 - 00400 00400 - 00500 00500 - 00600 | 038 029 035 044 | 00075 - 000 00090 - 00 00105 - 00 00120 - 00 00150 - 00 | 00090 029 00105 043 00120 032 00150 070 00200 079 | 00075 - 0 00090 - 0 00105 - 0 00120 - 0 | 00090 064 00105 073 00120 047 00150 070 | 00075 - 00090 00090 - 00105 00105 - 00120 00120 - 00150 00150 - 00200 | 052 078 052 055 046 | 00125 - 00150 00150 - 00175 00175 - 00200 00200 - 00225 00225 - 00250 | 073 067 041 082 055 |
| 00600 - 00800 00800 - 01000 01000 - 01250 01250 - 01500 01500 - 02000 | 094 086 055 056 | 00200 00250 00250 00300 00400 00600 | 00250 046 00300 041 00400 070 00600 108 00900 058 | 00200 00250 - 0 00300 - 0 00400 - 0 | 00250 053 00300 053 00400 064 00600 070 00900 032 | 00200 - 00250 00250 - 00300 00300 - 00400 00400 - 00600 00600 - 00900 | 034 029 008 011 023 | 00250 - 00275 00275 - 00300 00300 - 00325 00325 - 00350 00350 - 00400 | 026 038 046 061 067 |
| 02000 - 03000 03000 - 04000 04000 - 06000 06000 - 12000 > 12000 | 059 035 035 014 000 | 0.0900 - 0.15 0.1500 - 0.25 0.2500 - 0.50 0.5000 - 1.00 > 1.0000 | 01500 079 02500 055 05000 038 10000 003 | 00900 - 0 01500 - 0 02500 - 0 05000 - 1 > 10000 | 02500 023 02500 011 05000 000 10000 000 | 00900 - 01500 01500 - 02500 02500 - 05000 05000 - 10000 > 10000 | 000 000 000 000 | 00400 - 00500 00500 - 00750 00750 - 01000 01000 - 02000 > 02000 | 035 035 032 000 |
| NO OF MEASUR. | +00337 | NO OF MEASUR. MEAN (X10E-2) | +00341 | NO OF MEASUR. | EASUR. +00339 [X10E-3] +00210 | NO OF HEASUR. HEAN [X10E-4] | +00344 | NO OF HEASUR. HEAN [X10E-5] | +00341 |
| S10HA [X10E-2] | +01313 | SIGHA [X10E-2] | -2] +60898 | SIGMA (X10E-3) | E31 +00287 | SIGMA [X10E-4] | +00240 | SIGNA [X10E-5] | +60234 |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

ZUGSPITZE PEAK 3000 M TABLE: 29

PERIOD: 1970-1980

PARAMETER= AIR MASS TYPE: POLAR

| D1 = 0, 23 M1 | | D2 = 0. 45 | 45 HI | | D3 = 0. 93 | Ï | | D4 = 2. | 2. 00 MI | | 9 | 1 00 4 E | |
|----------------------------------|-----------------------|----------------------------|----------------------|---|-------------------------|---|---|---|----------|-----------------------|----------------------------|--------------------|--|
| | | | | | | | | | | | | | |
| RES. NR.: 212 | | RES. NR. : | : 213 | | RES. NR. : | 214 | | RES. NR. : | 215 | | RES. NR. : | : 216 | |
| PARTICL. CONC. FI [X10E-2] [1 | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-23 | | FREQUENCY [1/10 X] | PARTICI CON [X10E-3] | ن | FREGUENCY [1/10 X] | PARTICL, CONC. [X10E-4] | _ | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-5] | _ | FREGUENCY [1/10 X] |
| 0000 | 055 | 8 | | 8 | 8 | | 000 | 8 | | 200 | 8 | | 000 |
| 1 1 | 757 | | - 000043 - 000043 | = 00 = 00 | 00000 | 00030 00045 | 88 | | - 00030 | 125 | | - 00036 | 88 |
| 00150 - 00200 00200 - 00250 | 85 S | 00043 | - 000060 | 951 | 000043 | 90060 9007 3 | 911 | 000043 | - 000040 | 125 | 00076 | - 00100 | 88 |
| 00250 - 00300 | 000 | 00075 | 06000 - | 000 | - 5000 | 06000 | 033 | 00073 | 06000 - | 062 | 00125 | - 00150 | 88 |
| 1 | 88 | 00108 20103 | 8218 | 8 | 1 F0100 | 8 52 8 62 8 62 8 62 8 62 8 62 8 62 8 62 8 6 | 8 E | 00100 | - 00120 | 22 23 | 20120 | - 00200 | 8 |
| 00200 - 00200 | 88 | 00120 00130 | - 00150 | 60 60 60 60 60 60 60 60 60 60 60 60 60 6 | 00120 | 00130 00200 | 0 in | 00120 | - 00150 | 88 | 00200 00225 | - 00225 - 00250 | 8= |
| 00400 - 00400 | 8 | 00000 | 92.00 | ٤ | 00200 | 00250 | | 0000 | 000200 | ٤ | 280 | 27.000 | 144 |
| • | 8 | 00220 | • | 500 | | 0000 | 88 | 00220 | - 00300 | 8 | 00275 | • | Ξ |
| 01000 - 01250 | 88 | 0000 | 00400 | 8: | 00300 | 000 | ======================================= | 00000 | - 00400 | 88 | 00000 | - 00325 | d . |
| | 88 | 00900 | | 623 | 00900 | 00800 | | 00900 | 00600 | 000 | 00323 | 00400 | |
| ı | 111 | 00600 | - 01200 | 933 | - 00600 | 01200 | 550 | 00600 | - 01500 | . 090 | 00400 | - 00300 | 3 |
| 03000 - 04000 | 50 S | 01200 | - 02500 | e e | 01500 | 02500 | 000 | 01200 | - 02500 | 125 | 00200 | - 00750 | 00 00 00 00 00 00 00 00 00 00 00 00 00 |
| | 3 18 | 9000 | 1 | 38 | 000000 | 9000 | 38 | 000000000000000000000000000000000000000 | 00001 | 38 | 888 | 02000 | 88 |
| > 12000 | 8 | > 10000 | | 8 | 00001 < | | 8 | 10000 | | 8 | > 02000 | _ | 8 |
| NO OF MEASUR. | +00018 | NO OF MEASUR. | EASUR. | +00018 | NO OF MEASUR. | SUR. | €1000+ | NO OF M | MEASUR. | +00016 | NO OF H | MEASUR. | +00018 |
| NEAN [X10E-2] | +01306 | MEAN | [X10E-23 | +00469 | MEAN CX | (X10E-3) | +00316 | HEAN | [X10E-4] | 16000+ | HEAN | [X10E-5] | +00375 |
| 810MA (X10E-2) | +01961 | SIGHA | [X10E-2] | +00750 | SIGNA CX | [X10E-3] | +00444 | SIOMA | [X10E-4] | +00697 | SIGHM | CX10E-51 | +00173 |
| | | | | | | | | | | | | | |
| | | | | | | | | | | 4 | | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 30 ZUGSPITZE PEAK 3000 M

| ŧ |
|----------|
| ると |
| |
| I NEN |
| Š |
| u |
| 3 |
| POLAR |
| TYPE: |
| AIR MASS |
| AIR |
| METER= |
| PARA |

| D1 = 0.23 HI | | 45 | 18 MI | | D3 = 0, 93 P | Ī | | D4 = 2, 00 MI | | 05 = 4.50 | Ī | |
|---|---|--|--|--------------------------|--|----------------------------------|---------------------------------|--|---|---|----------------------------------|---------------------------------|
| RES. NR. : 227 | | RES. NR. : | . 228 | | RES. NR. : 2 | 229 | | RES. NR. : 23 | 730 | RES. NR. : | 231 | |
| PARTICL CONC F | FREGUENCY [1/10 X] | PARTICL. CONC. | _ | FREGUENCY (1/10 X) | PARTICL. CONC. [X10E-3] | | FREUJENCY [1/10 X] | PARTICL. CONC. [X10E-4] | C. FREGUENCY [1/10 X] | PARTICL. CONC. EX10E-51 | | FREGUENCY |
| C 00050 00050 - 00100 00100 - 00150 00150 - 00150 | 043 043 000 | 8 | | 000 095 097 | 20 I I I | 00045 00045 00060 | 000 045 090 | 0015 | | <pre></pre> | 00050 00076 00100 | 000 080 043 |
| | 3 88 5 8 | 00000 00000 00100 00120 | 000/3 00100 00130 | \$ 60000 \$ 600000 | 000000 = 000000 = 000000 = 0000000 = 000000 | 000/3 00100 00120 00130 | 000 0045 136 | 00060 - 00 00073 - 00 00105 - 00 00120 - 00 | 00075 043 00090 136 00105 181 00120 090 00150 045 | 00100 00125 00150 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 90125 90175 90175 90225 | 0 0000 |
| 11111 | 043 043 043 173 | 00200 00230 00300 00400 | 00250 00300 00400 00600 | 000 000 142 000 | 11111 | 00250 00300 00400 00600 | 136 000 090 136 136 | 11111 | | 00250 - 00375 - 00325 - 00325 - 00325 - 00325 - 00350 | 00275 00300 00325 00350 | 086 000 000 000 173 |
| 02000 - 03000 03000 - 04000 04000 - 06000 06000 - 12000 > 12000 | 986 986 986 986 986 986 986 986 986 | 00900 - 01500 - 02500 - 05000 - | - 01500 - 02500 - 05000 - 10000 | 000 000 093 000 | 00900 - 0 01500 - 0 02500 - 0 05000 - 1 | 01500 02500 05000 10000 | 000 000 000 000 000 | 00900 - 00 01500 - 02 02500 - 02 03000 - 10 | 01500 000 02500 000 05000 000 10000 000 | 00400 - 00500 - 00750 - 01600 - > 02000 | 00500 00750 01000 02000 | 000 000 000 000 |
| NO OF MEASUR. MEAN (XIOE-23 | +00023 | NO OF HEASUR. | EASUR. [X10E-2] | +00021 | NO OF MEASUR | -33 | +00022 | NO OF MEASUR. MEAN (X10E-4) | T. +00022 E-41 +00187 | NO OF MEASUR MEAN (X10E | Ş | +00023 |
| STINIA [X10E-2] | +01174 | SIGMA | (K10E-2) | +01666 | SIGMA CAIG | CX10E-31 | +00443 | SIGNA EKIOE-41 | :-41 +00222 | SIGMA EXI | [X10E-5] | +00222 |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 31 ZUC

ZUGSPITZE PEAK 3000 M

PERIOD: 1970-1980

PARAMETER= AIR MASS TYPE: MARITIME

| D1 = 0, 23 HI | | D2 = 0. 45 NI | | D3 = 0.93 MI | _ | D4 = 2.00 MI | | D5 = 4.50 HI | |
|---|---------------------------------|---|--|--|---|---|---------------------------------|---|--|
| RES. NR. : 242 | | RES. NR.: 243 | | RES. NR. : 244 | • | RES. NR. : 245 | | RES. NR. : 246 | |
| PANTICL, CONC. FI | FREGUENCY [1/10 X] | PARTICL, CONC. CX10E-21 | FREGUENCY (1/10 X) | PARTICL. CONC. (X10E-31 | FREQUENCY | PARTICL. CONC. F | FREQUENCY | PARTICL. CONC. [X10E-5] | FREQUENCY [1/10 X] |
| 00050 00050 00100 00100 00150 00200 00200 | 046 048 069 055 | C 00015 00015 - 00030 00030 - 00045 00045 - 00060 | 020 043 | 00015 00015 00030 00045 00 00060 | 00030 081 00045 062 00060 075 | C 00015 00015 - 00030 00030 - 00045 00045 - 00060 | 074 128 101 103 068 | 00025 00025 - 00050 00050 - 00076 00076 - 00100 | 0012 |
| 00250 - 00300 00300 - 00350 00350 - 00400 00400 - 00500 00500 - 00600 | 036 040 036 069 052 | 00075 - 00090 00090 - 00105 00105 - 00120 00120 - 00150 00150 - 00500 | 00 033 00 041 00 047 | 00075 : 000 00090 : 00 00105 : 00 00120 : 00 | 00090 • 047 00105 • 060 00120 041 00150 058 | 00075 - 00090 00090 - 00103 00105 - 00120 00120 - 00150 00150 - 00200 | 066 038 035 062 | 00125 - 00150 00150 - 00175 00175 - 00200 00200 - 00225 00225 - 00250 | 044 0044 0056 0059 |
| 00600 - 00300 00800 - 01000 01000 - 01250 01250 - 01500 01500 - 02000 | 108 057 061 031 | 00250 - 00250 00250 - 00300 00300 - 00400 00400 - 00600 | 00 045 00 000 00 000 00 000 00 000 | 00250 - 00250 - 00300 - 00300 - 00400 - 006000 - 0060000 - 006000 - 006000 - 006000 - 006000 - 006000 - 006000 - 0060000 - 006000 - 006000 - 006000 - 006000 - 006000 - 006000 - 0060000 - 006000 - 006000 - 006000 - 006000 - 006000 - 006000 - 0060000 - 006000 - 006000 - 006000 - 006000 - 006000 - 006000 - 0060000 - 006000 - 006000 - 006000 - 006000 - 006000 - 006000 - 0060000 - 006000 - 006000 - 006000 - 006000 - 006000 - 006000 - 0060000 - 006000 - 006000 - 006000 - 006000 - 006000 - 006000 - 0060000 - 006000 - 006000 - 006000 - 006000 - 006000 - 006000 - 0060000 - 006000 - 006000 - 006000 - 006000 - 006000 - 006000 - 0060000 - 006000 - 006000 - 006000 - 006000 - 006000 - 006000 - 0060000 - 006000 - 006000 - 006000 - 0060000 - 0060000 - 0060000 - 006000 - 0060000 - 00600000 - 0060000 - 0060000 - 006000000 - 006 | 00250 039 00300 029 00400 085 00600 079 00900 075 | 00250 - 00250 00250 - 00300 00300 - 00400 00400 - 00600 00600 - 00900 | 054 037 037 037 | 00250 - 00278 00275 - 00300 00300 - 00325 00325 - 00350 00350 - 00400 | 0000 0000 0000 0000 0000 0000 0000 |
| 02000 - 03000 03000 - 04000 04000 - 06000 06000 - 12000 > 12000 | 072 025 033 021 000 | 00900 - 01500 01500 - 02500 02500 - 05000 05000 - 10000 > 10000 | 000 | 00900 - 01: 01500 - 02: 02500 - 05: 05000 - 10: > 10000 | 01500 058 02500 025 05000 014 10000 000 | 00900 - 01500 01500 - 02500 02500 - 05000 05000 - 10000 > 10000 | 000 000 000 000 | 00400 - 00500 00500 - 00750 00750 - 01000 01000 - 02000 > 02000 | 096 113 049 000 |
| NO OF MEASUR. MEAN (X10E-2) SIGNA (X10E-2) | +01094 | NO OF MEASUR. MEAN (X10E-2 S10MA (X10E-2 | +00481 13 +00829 23 +01143 | NO OF MEASUR. MEAN (X10E-31 SIGMA (X10E-31) | +00480 -31 +00341 -31 +00492 | NO OF MEASUR. MEAN [X10E-4] SIGNA [X10E-4] | +00481 | ND OF MEASUR. MEAN (X10E-5) SIGNA (X10E-5) | +00468 1 +00334 1 +00242 |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

ZUGSPITZE PEAK 3000 M

PERIOD: 1970-1980

TABLE: 32

PARAMETER= AIR MASS TYPE: CONTINENTAL

| D1 = 0, 23 H1 | | D2 = 0. 45 MI | 18 HI | | D3 = 0.93 | II. | | 04 = 2. | 2. 00 MI | | DS = 4.50 MI | 30 HI | |
|---|---------------------------------|---|--|--------------------------|---|---|--------------------------|---|--|---------------------------------|---|--|--------------------------|
| RES. NR. : 257 | · _ | RES. NR. | . 258 | | RES. NR. : . | 259 | | RES. NR. | . 260 | | RES. NR. : | . 261 | |
| PARTICL. CONC EX10E-23 | FREGUENCY [1/10 X] | PARTICL. CONC. CX10E-21 | | FREGUENCY [1/10 %] | PARTICL. CONC. [X10E-3] | | FREGUENCY (1/10 %) | PARTICL. CONC. [X10E-4] | | FREGUENCY [1/10 X] | PARTICL. COND. [X10E-5] | | FREGUENCY [1/10 %] |
| 6.0050 9050 90150 90150 90150 90200 90250 | 022 060 067 067 | C 00015 00015 - 00030 - 00045 - | 15 - 00030 - 00045 - 00060 - 00050 | 033 031 047 047 | 00015 - 00015 - 00030 - 00045 - 0000600 - 000060 - 000060 - 000060 - 000060 - 000060 - 000060 - 00000000 | 00030 00045 00060 00075 | 037 082 067 045 | C 00015 00015 - 00030 - 00045 - | 15 - 00030 - 00045 - 00060 - 00075 | 082 112 045 075 | <pre></pre> | 25 - 00050 - 00076 - 00100 - 00125 | 016 008 031 049 |
| 00250 - 00350 00300 - 00350 00350 - 00400 00400 - 00500 00500 - 00600 | 037 030 030 037 037 | 00073 00090 00105 00120 00150 | 00090 00103 00120 00150 | 047 015 031 070 | 00075 - 00090 - 00105 - 00150 | 00090 00105 00120 00150 | 030 045 067 045 | 00075 00090 00105 00120 | - 00090 - 00105 - 00120 - 00150 | 022 022 067 075 | 90125 90150 90175 90200 | 00150 00175 00200 00225 00225 | 032 032 016 065 |
| 00600 - 00800 00800 - 01000 01000 - 01250 01250 - 01500 01500 - 02000 | 050 067 073 0022 | 00200 00250 00300 00400 | 00250 00300 00400 00600 | 007 039 031 038 | 00250 00250 00300 00400 | 00250 00300 00400 00600 00900 | 037 030 045 075 | 00200 00250 00350 00400 00600 | 00250 00300 00400 00600 | 030 052 082 097 075 | 00250 00275 00375 00325 00325 | 00275 00360 00350 00350 | 032 040 040 040 |
| 02000 - 03000 03000 - 04000 04000 - 06000 06000 - 12000 > 12000 | 000 052 0052 000 | 00900 01500 02500 05000 > 10000 | - 01500 - 02500 - 05000 - 10000 | 024 086 157 047 | 00900 - 01500 - 02500 - 05000 - 0 10000 - 0 10000 - 0 10000 - 0 10000 | 01500 02500 05000 10000 | 163 060 000 000 | 00900 01500 02500 05000 > 10000 | - 01500 - 02500 - 05000 - 10000 | 000 000 000 000 000 | 00400 00500 00750 01000 > 02000 | - 00500 - 00750 - 01000 - 02000 | 073 180 090 131 |
| NO OF HEASUR HEAN [X10E-2] | +00133 | NO OF MEASUR. MEAN CX10E | EASUR. [X10E-2] | +00127 | NO OF MEASUR MEAN (X10E) | EASUR. EX10E-31 | +00133 | NO OF MEASUR. | EASUR. [X 1 OE - 4] | +00133 | NO OF M | MEASUR. [X10E-5] | +00122 |
| SIGMA [XIOE-2] | 1 +01720 | SIGMA | (X10E-21 | +01578 | SIGNA EX | [X10E-3] | +000119 | SIGMA | [X10E-4] | +00380 | SIGNA | CX10E-51 | +00361 |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 33 ZUGSPITZE PEAK 3000 M

PERIOD: 1970-1980

PARAMETER= AIR MASS TYPE: TROPICAL-MARITIME

| D1 = 0.23 HI | | D2 = 0. | 0. 45 HI | | D3 = 0, 93 P | Ĭ | | D4 = 2. | 2. 00 HE | | 05 = 4.50 | 50 MI | |
|---|---------------------------------|---|---|---------------------------|--|---|---------------------------------|--|---|---------------------------------|---|--|------------------------------------|
| RES. NR. : 272 | | RES. NR. : | .: 273 | ·" - | RES. NR.: 2 | 274 | | RES. NR. | : 275 | | RES. NR. : | : 276 | |
| PARTICL. CONC. F | FREGUENCY (1/10 x1 | PARTIC CXI | PARTICL. CONC. FF (X10E-2) [1 | REGUENCY 1/10 X1 | PARTICL. CONC. CX10E-31 | | FREGUENCY [1/10 %] | PARTICL. CONC. [X10E-4] | | FREGUENCY | PARTICL. CONC. [X10E-5] | | FREDUENCY [1/10 X] |
| 60050 60050 60100 60150 60150 60200 60200 | 047 028 028 028 | C 00015 00015 - 00030 - 00045 - | 015 - 00030 - 00045 - 00060 - 00055 | 000 037 038 009 | 00015 - 00015 00030 - 000045 - 0 | 00030 00045 00060 00075 | 009 059 039 019 | <pre></pre> | - 00045 - 00045 - 00045 - 00050 | 067 057 067 048 019 | 0002500025000500007600100 | 25 - 00050 - 00076 - 00100 - 00125 | 000 011 0011 0011 0011 |
| 00250 - 00300 00300 - 00350 00350 - 00400 00400 - 00500 | 057 009 028 057 | 00075 00090 00105 00120 00150 | 00090 00105 00150 00150 | 038 000 028 066 | 00075 - 00090 - 000105 - 001120 - 00115 | 00090 00105 00120 00150 00200 | 019 009 019 059 | 00073 00090 00105 00120 00130 | - 00090 - 00105 - 00120 - 00150 | 038 067 019 067 | 00125 00130 00175 00200 00223 | - 00150 - 00175 - 00200 - 00225 | 055 044 033 011 |
| 00600 - 00800 00800 - 01000 01000 - 01250 01250 - 01500 01300 - 02000 | 133 076 057 038 057 | 00200 00250 00300 00400 | - 00250 - 00300 - 00400 - 00600 | 028 028 057 047 | 00200 - 00250 - 000300 - 00400 - 00600 | 00250 00300 00400 00600 00900 | 049 029 059 079 089 | 00200 00250 00300 00400 00600 | - 00250 - 00300 - 00400 - 00600 - 00900 | 076 057 038 076 086 | 00250 00275 00300 00325 00350 | - 00275 - 00300 - 00325 - 00350 | 044 066 000 011 055 |
| 02000 - 03000 03000 - 04000 04000 - 06000 06000 - 12000 > 12000 | 028 104 104 038 | 00900 01500 02500 05000 > 10000 | - 01500 - 02500 - 05000 - 10000 | 114 1180 000 000 | 00900 - 0 01500 - 0 02500 - 0 05000 - 1 | 01500 02500 05000 10000 | 128 148 049 000 | 00900 - 01500 - 025500 - 05000 - 05000 - 05000 | - 01500 - 02500 - 05000 - 10000 | 986 000 000 000 | 00400 - 00500 - 00750 - 01000 - > 02000 | - 00500 - 00750 - 01000 - 02000 | 133 188 077 100 000 |
| NO OF MEASUR. MEAN (X10E-2) | +00105 | NO OF I | NO OF MEASUR. MEAN (XIOE-2) | +00105 | NO OF MEASUR | 9 | +00101 | NO OF M | MEASUR. [X106-4] | +00104 | NO OF HEASUR HEAN IXIDE | EASUR. [X10E-5] | +00090 |
| 1 | | | | | ŀ | j | | | | | | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PERIOD: 1970-1980 GARMISCH (VALLEY 740 M) TABLE: 34

PARAMETER - AIR TEMPERATURE AT ZUGSPITZE <-15 DEGREE CELSIUS (VERY COLD AIR MASSES)

| DI = 0.23 HI | | D2 = 0.45 HI | . 14 | | D3 = 0.93 HI | 93 HI | | D4 = 2 | . 00 H | | IS = 4.50 M | . 50 MI | |
|---|----------------------------------|---|---|---------------------------------|---|--|---------------------------------|---|--|---------------------------------|---|---|---------------------------------|
| RES NR.: 122 | | RES. NR. : | 123 | | RES. NR. : | : 124 | | RES. NR. | .: 125 | | RES. NR. : | .: 126 | |
| PARTICL. CONC. [X10E-2] | FREQUENCY | PARTICL. CONC. [X10E-2] | | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-3] | | FREQUENCY [1/10 %] | PARTIC | PARTICL. CONC. F [X10E-4] [| FREGUENCY [1/10 %] | PARTIC | PARTICL. CONC. (K10E-51 | FREGUENCY [1/10 %] |
| 80 1 1 | | 8 | | 179 | < 00150 00150 00300 | | 067 203 152 | <pre></pre> | | 033 084 092 | <pre></pre> | | 000 052 086 |
| 01500 - 02000 02000 - 02500 | 0 050 | 00020 | 02000 | 128 | 00420 | - 00450 | 101 | 00150 | - 002200 | 075 | 00800 | 00800 | 121 |
| 02500 - 03000 03000 - 03500 03500 - 04000 04000 - 05000 05000 - 06000 | 0 042 0 042 0 042 0 050 | 02500 03000 03500 04000 | 03000 03500 04000 04500 | 051 025 042 025 034 | 00750 00900 01050 01200 01350 | - 00900 - 01050 - 01200 - 01350 | 059 042 067 008 | 00250 00300 00350 00400 00500 | 00300 00350 00500 - 00600 | 067 084 042 050 | 01000 01200 01400 01600 | - 01200 - 01400 - 01600 - 01800 - 02000 | 086 060 052 069 043 |
| 06600 - 07000 07000 - 09000 08000 - 10000 10000 - 15000 15000 - 25000 | 0 025 0 075 0 075 | 05000 06000 07000 08000 | 06000 07000 08000 10000 13000 | 042 008 034 068 | 01500 01650 01800 02000 02500 | - 01650 - 01800 - 02000 - 02500 | 025 016 025 016 033 | 00600 00700 00800 00900 | - 00700 - 00800 - 00900 - 01000 | 058 058 025 025 025 | 02000 02250 02500 03000 03500 | - 02250 - 02500 - 03000 - 03500 - 04000 | 034 017 113 052 026 |
| 25000 - 40000 40000 - 60000 60000 - 80000 80000 - 100000 | 0000 | 15000 - 20000 - 30000 - 40000 - > 50000 | 20000 30000 40000 | 034 000 000 000 | 03000 - 04000 - 06000 - 10000 - > 20000 | - 04000 - 06000 - 10000 - 20000 | 000 033 000 000 | 01250 01500 02000 03000 > 04000 | - 01500 - 02000 - 03000 - 06000 | 008 016 042 000 | 04000 - 05000 - 07000 - 09000 - > 12000 | - 05000 - 07000 - 09000 - 12000 | 034 052 000 000 |
| NO OF MEASUR. PEAN (X10E-2) | +00119 | NO OF MEASUR. | EASUR. EX10E-21 | +00117 | NO OF MEAN | MEASUR. [X10E-3] | +00118 | NO OF I | NO OF MEASUR. MEAN (XIOE-4) | +00119 | NO OF MEASUR. | HEASUR. [X10E-5] | +00115 |
| SIGNA (XIOE-2) | 1 +09795 | sighta t | (X10E-2) | +06536 | STORA | [X10E-3] | +01488 | SIGMA | [X10E-4] | +00823 | SIGMA | [X10E-5] | +01844 |

PERIOD: 1970-1980 GARMISCH (VALLEY 740 M) TABLE: 35

PARAMETER= AIR TEMPERATURE AT ZUGSPITZE >+5 DEGREE CELSIUS (VERY WARM AIR MASSES)

| | FREGUENCY [1/10 %] | 000 053 070 079 026 | 070 123 035 079 035 | 079 079 088 017 044 | 026 070 017 000 | +00113 +02131 +01646 |
|-------------------------------|--------------------------------|---|--|---|---|---|
| DS = 4,50 MI RES.NR.: 141 | PARTICL. CONC. F [X10E-5] [| 200 - 00400 - 00600 - 00800 - 01000 | 01200 01400 01600 01800 | - 02500 - 02500 - 03500 - 03500 | - 05000 - 07000 - 09000 - 12000 | NO OF PEASUR. HEAN [X10E-5] SIGNA (X10E-5] |
| D5 = 4.5 | PARTIC EX1 | C 00200 00200 - 00400 - 00600 - | 01000 01200 01400 01600 | 02000 02250 02500 03000 03500 | 04000 - 05000 - 07000 - 09000 - 09000 - > 12000 | NO OF |
| | FREGUENCY [1/10 X] | 018 018 009 009 | 009 036 045 | 109 090 054 054 | 109 100 063 036 000 | +001100 |
| 00 HI | | 00100 00150 00200 00250 | 00300 - 00400 - 00500 | - 00700 - 00800 - 00900 - 01000 | - 01505 - 02000 - 03000 - 06000 | MEASUR. [X10E-4] [X10E-4] |
| D4 = 2.00 HI | PARTICL. CONC. [X10E-4] | <pre></pre> | 00250 00300 00350 00400 00500 | 00600 00700 00800 00900 01000 | 01250 - 01500 - 02000 - 03000 - > 06000 | NO OF P |
| | FREGUENCY [1/10 X] | 018 009 072 081 072 | 063 005 005 005 005 005 005 005 005 005 00 | 036 072 036 090 100 | 027 045 018 000 | +01100 |
| = 0.93 MI | _ | 150 - 00300 - 00450 - 00600 - 00750 | - 00900 - 01050 - 01200 - 01350 | - 01650 - 01800 - 02000 - 02500 - 03000 | - 04000 - 06000 - 10000 - 20000 | EASUR. [X10E-3] [X10E-3] |
| D3 m O. RES. NR. | PARTICL. CONC. [X10E-3] | 0015000150003000045000600 | 00750 00900 01050 01200 01350 | 01500 01650 01800 02000 02500 | 03000 04000 06000 10000 > 20000 | NO OF MEASUR MEAN (XIOE SIGMA (XIOE |
| | FREGUENCY [1/10 %] | 008 041 097 088 | 097 088 044 061 053 | 044 044 053 | 026 026 000 000 | +05790 |
| 45 MI : 138 | | 500 - 01000 - 01500 - 02000 - 02500 | 03000 03500 1 1 04000 05000 | - 06000 - 07000 - 10000 - 15000 | 20000 30000 1 1 1 50000 0 1 50000 | EASUR. [X10E-2] [X10E-2] |
| D2 = 0.45 MI RES. NR.: 13 | PARTICL. CONC. [X10E-2] | C 00500 00500 - 01000 - 01500 - | 02500 03000 03500 04000 | 05000 06000 07000 08000 10000 | 15000 20000 30000 40000 > 50000 | NO OF MEASUR MEAN (X106: SIGMA (X106: |
| | FREDMENCY [1/10 X] | 060 026 086 104 | 086 078 060 060 043 | 052 026 078 060 | 000 000 000 000 | +06024 +06802 |
| D1 = 0. 23 MI ES. NR.: 137 | | 500 - 01000 - 01500 - 02000 - 02500 | 03000 | 1 09000 1 10000 1 15000 25000 | - 40000 - 60000 - 80000 - 100000 | EASJR. [X10E-2] [X10E-2] |
| D1 = 0. | PARTICL. CONC [X10E-2] | 00500 - 01000 - 01000 - 01000 - 01200 | 02500 03000 03500 04000 05000 | 04000 07000 08000 10000 15000 | 25000 - 40000 - 60000 - 80000 - >100000 | NO OF MEASUR MEAN (X10E SIGNA (X10E |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PERIOD: 1970-1980 WANK PEAK 1780 M TABLE: 36

| CELSIUS (VERY COLD AIR MASSES) | D4 = 2.00 HI D5 = 4.50 HI | RES. NR.: 130 RES. NR.: 131 | ENCY PARTICL. CONC. FREGUENCY PARTICL. CONC. FREGUENCY X1 [X10E-4] [1/10 X] [X10E-5] [1/10 X] | 049 < 00025 | 098 00125 - 00130 085 00125 - 00150 029 107 00150 - 00173 019 00130 - 00175 049 039 00175 - 00200 038 00175 - 00200 068 050 - 00250 - 00250 085 00200 - 00250 058 068 00250 - 00300 009 00250 - 00300 127 | 019 00300 - 00350 - 00400 028 00350 - 00400 039 049 00400 - 00450 019 00400 - 00450 039 029 00450 - 00500 009 00450 - 0050 019 029 00500 - 00600 047 0050 - 0060 049 | 049 00600 - 00700 019 00600 - 00700 039 039 00700 - 01000 019 00700 - 01000 126 029 01000 - 02000 019 01000 - 02000 029 000 02000 - 04000 000 02000 - 04000 009 000 > 04000 > 04000 000 | 102 NO OF MEASUR. +00105 NO OF MEASUR. +00102 409 MEAN [XIOE-4] +00195 MEAN [XIOE-5] +00417 534 SIGMA [XIOE-4] +00262 SIGMA [XIOE-5] +00347 |
|--------------------------------|-----------------------------|-----------------------------|---|---|---|--|---|---|
| AT ZUGSPITZE <-15 DEGREE | HI D3 = 0. 93 HI | 128 RES. NR.: 129 | MC. FREQUENCY PARTICL. CONC. FREGUENCY | 151 < 00025 049 00200 121 00025 00050 088 00300 111 00050 00076 058 00400 040 00076 00100 039 00500 040 00100 039 | 00600 040 00150 - 00200 099 00750 040 00200 - 00250 107 01000 090 00250 - 00300 039 01500 060 00300 - 00350 058 02000 050 00350 - 00460 058 | 02500 050 050 00400 - 00450 0050 009 04000 050 050 00500 009 009 05000 020 00600 049 049 07000 030 00600 0070 029 07000 030 00700 029 029 | 09000 020 01000 - 01500 049 12000 020 01500 - 02000 039 15000 010 02000 - 03500 029 20000 000 - 06000 000 > 06000 > 06000 000 | EASUR. +00099 NO OF MEASUR. +00102 [X10E-2] +01585 HEAN [X10E-3] +00409 [X10E-2] +02469 SIGMA [X10E-3] +00534 |
| PARAMETER= AIR TEMPERATURE | DI = 0, 23 HI D2 = 0, 45 HI | RES. NR : 127 RES. NR. : | FARTICL CONC FREGUENCY PARTICL. CONC. TX10E-21 [1/10 X] [X10E-21 | < 00200 | 01000 - 01200 096 00500 - 01200 - 01400 067 00600 - 01400 019 00750 - 01600 - 019 01000 - 01800 - 02000 029 01500 - 01800 - 02000 029 | 02000 - 02500 039 02000 - 02500 - 03000 076 02500 - 03000 067 03000 - 03500 067 03000 - 00500 - 00000 038 05000 - 00000 038 05000 - 05 | 05000 - 06000 028 07000 - 06000 - 08000 009 09000 - 08000 038 12000 - 16000 - 15000 - | ND OF MEASUR. +00104 ND OF MEASUR. MEAN [X10E-2] +01936 MEAN [X10E SIGNA [X10E-2] +01997 SIGNA [X10E |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER MARKETE SIZE CLASS

PERIOD: 1970-1980 WANK PEAK 1780 M TABLE: 37

PARAMETER= AIR TEMPERATURE AT ZUGSPITZE >+5 DEGREE CELSIUS (VERY WARM AIR MASSES)

| D1 = 0. 23 MI | | 62 = 0. 45 MI | 18 AI | | D3 = 0.9 | 0. 93 MI | | D4 = 2. 00 MI | H | | DS = 4. 50 HI | 50 HI | |
|---|---------------------------------|---|---|---------------------------------|---|---|---------------------------------|---|---|---------------------------------|---|--|----------------------------|
| RES. NR.: 142 | | RES. NR. : | 143 | | RES. NR. : | 144 | | RES. WR. : | 143 | | RES. NR. : | 146 | |
| FARTICL, CONC FRE TX10E-21 [1/ | FREQUENCY | PARTICL. CONC. [X10E-2] | | FREGUENCY [1/10 X] | PARTICL. CONC. [X10E-3] | _ | FREGUENCY [1/10 X] | PARTICL. CONC. [X10E-4] | | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-5] | | FREGUENCY |
| < 00200 00200 - 00400 00400 - 00600 00600 - 00800 00800 - 01000 | 009 045 036 027 036 | 0010000100002000030000400 | 00200 - 00300 - 00400 - 00500 | 000 | 00025 00050 00076 00100 | 5 00050 00076 00100 00150 | 009 019 039 029 | < 00025 00025 - 00050 - 00076 - 00100 - | 5 00050 00076 00100 00125 | 029 039 039 029 | <pre></pre> | 25 00050 00076 00100 00125 | 000 000 000 |
| 01000 - 01200 01200 - 01400 01400 - 01600 01600 - 01800 01800 - 02000 | 082 045 045 036 064 | 00500 - 00600 - 00750 - 01000 - | 00500 00750 01000 01500 | 019 000 079 089 | 00150 - 00250 - 00250 - 00350 - | 00200 00250 00300 00350 00400 | 029 009 019 009 | 00125 00150 00175 00200 00230 | 00150 00175 00200 00250 00300 | 039 039 049 029 | 00125 00150 00175 00200 | 00150 00175 00200 00250 | 010 020 030 010 |
| 02000 - 02500 02500 - 03000 03000 - 03500 03500 - 04000 04000 - 05000 | 110 128 045 055 | 02000 - 02500 - 03000 - 04000 - | 02500 03000 04000 05000 07000 | 079 059 079 039 178 | 00400 - 00450 - 00500 - 00600 - 00700 | 00450 00500 00500 00700 01000 | 009 039 088 068 205 | 00330 00430 00450 00450 | 00350 00400 00450 00500 00500 | 049 049 039 058 078 | 00300 00350 00450 00550 | 00350 00450 00500 00500 | 080 040 030 080 |
| 05000 - 06000 06000 - 08000 08000 - 10000 10000 - 15000 | 045 073 009 000 | 07000 - 09000 - 12000 - 15000 - > 20000 | - 12000 - 12000 - 15000 - 20000 | 079 148 029 000 | 01000 01500 02000 03500 > 06000 | 01500 02000 03500 06000 | 127 117 107 800 800 | 00600 - 00700 - 01000 - 02000 - > 04000 | 00700 01000 02000 04000 | 068 137 000 000 | 00600 - 00700 - 01000 - 02000 - > 04000 | - 00700 - 01000 - 02000 - 04000 | 070 180 250 000 |
| ND OF MEASUR + MEAN [X10E-2] + SIGMA [X10E-2] + | +00109 | NO OF MEASUR. MEAN (XIOE. SIGMA (XIOE. | EASUR. [X10E-2] [X10E-2] | +00101 | NO OF MEASUR MEAN (X10E S1GMA (X10E) | EASUR. [X106-3] [X106-3] | +00102 +00934 +00733 | NO OF MEASUR. MEAN TXIOE SIGMA TXIOE | -43 | +00102 | NO OF MEASUR MEAN [X10E SIGMA [X10E | EASUR. [X10E-5] [X10E-5] | +00100 +00722 +00427 |
| | | | | | | | | | | | | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PERIOD: 1970-1980 PARAMETER= AIR TEMPERATURE AT ZUGSPITZE <-15 DEGREE CELSIUS (VERY COLD AIR MASSES) ZUGSPITZE PEAK 3000 M TABLE: 38

| DI = 0.23 MI | | D2 = 0.45 MI | | D3 = 0, 93 M1 | | D4 = 2.00 HI | | DS = 4. 50 MI | ï | |
|---|--------------------------|--|---------------------------------|---|--|---|--------------------------|---|---|---------------------------------|
| RES NR.: 132 | | RES. NR.: 133 | | RES. NR.: 134 | | RES. NR.: 135 | | RES. MR. : | 981 | |
| PARTICL, CONC. FI [X10E-2] [1 | FREGUENCY [1/10 X] | PARTICL. CONC. F | FREQUENCY [1/10 x] | PARTICL. CONC. [X10E-3] | FREQUENCY | PARTICL. CONC. CX10E-41 | FREGUENCY | PARTICL. CONC. [X10E-5] | NC. FREUJENCY 3 (1/10 %) | ENCY 73 |
| C 00050 00050 - 00100 00100 - 00150 00150 - 00200 00200 - 00250 | 028 076 095 066 | 00015 00015 - 00030 00030 - 00045 00060 00060 00073 | 009 038 097 135 | C 00015 00015 - 00030 00030 - 00045 00045 - 00060 | 086 30 096 45 038 60 057 75 105 | C 00015 00015 - 00030 00030 - 00045 00045 - 00060 00060 - 00075 | 076 161 133 114 | 00025 00025 - 000050 00076 - 000100 - 00100 | 00050 00076 00100 00125 | 028 009 047 037 |
| 00250 - 00300 00300 - 00350 00350 - 00400 00400 - 00500 00300 - 00600 | 019 028 038 057 | 00075 - 00090 00090 - 00103 00105 - 00120 00120 - 00150 00150 - 00150 | 029 029 067 067 | 00075 - 00090 00090 - 00105 00105 - 00120 00120 - 00150 00150 - 00200 | 90 048 05 067 20 076 50 125 00 086 | 00075 - 00090 00090 - 00105 00105 - 00120 00120 - 00150 00150 - 00200 | 066 076 057 066 | 00125 - 00150 - 00175 - 00220 - 00225 - 00225 | 00150 00175 00200 00225 00250 | 094 016 028 122 028 |
| 00500 - 00800 00800 - 01000 01000 - 01250 01250 - 01500 01500 - 02000 | 085 047 095 009 | 00200 - 00250 00250 - 00300 00300 - 00400 00400 - 00600 | 038 058 048 116 029 | 00200 - 00250 00250 - 00300 00300 - 00400 00400 - 00600 | 50 019 00 029 00 057 00 057 | 00250 - 00250 00250 - 00300 00300 - 00400 00400 - 00600 00600 - 00900 | 019 | 00250 - 00273 - 00300 - 00325 - 00350 | 00275 00300 00325 00350 00400 | 037 037 075 047 |
| 02000 - 03000 03000 - 04000 04000 - 06000 06000 - 12000 > 12000 | 104 009 028 000 | 00900 - 01500 01500 - 02500 02500 - 05000 05000 - 10000 > 10000 | 038 067 000 000 | 00900 - 01500 01500 - 02500 02500 - 05000 05000 - 10000 | 900 900 900 900 900 900 900 | 00900 - 01500 01500 - 02500 02500 - 05000 05000 - 10000 > 10000 | 000 000 000 000 | 00400 - 00500 - 00750 - 01000 - 0 | 00500 00750 01000 02000 | 122 066 028 037 000 |
| NEJ OF MEASUR. MEAN (X10E-2) | +00105 | NO OF MEASUR. MEAN [X10E-2] | +00103 | NO OF MEASUR. | +00104 | NO OF MEASUR. MEAN [X10E-4] | +00105 | NO OF MEASUR | -3 | +00100+ |
| \$10MA [X10E-2] | +01529 | STOWN [X10E-2] | +00569 | SIGMA [X10E-3] | 31 +00284 | SIGMA (KIDE-41 | +00320 | SIGNA EXIC | [X10E-5] +04 | +00242 |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PERIOD: 1970-1980 ZUGSPITZE PEAK 3000 M TABLE: 39

PARAMETER= AIR TEMPERATURE AT ZUGSPITZE >+5 DEGREE CELSIUS (VERY WARM AIR MASSES)

| | | | | | | - | | | | | | |
|--------------------------------|-----------------------|--------------------------------|-----------|----------------------------|----------|-----------------------|----------------------------|----------|-----------------------|----------------------------|------------|----------------------|
| D1 = 0.23 HI | · · · · | D2 = 0.45 MI | | D3 = 0. 93 | E E | | 94 = 2. | 2. 00 HI | | 18 18 | # 4. 50 MI | |
| | | | | | | | | | | | | |
| RES. NR. : 147 | | RES. NR. : 148 | | RES. NR. : | 149 | | RES. NR. | . 120 | | RES. NR. : | : 151 | |
| PARTICL. CONC. FRE | FREGUENCY [1/10 %] | PARTICL, CONC. [X10E-2] | FREQUENCY | PARTICL. CONC. [X10E-3] | | FREQUENCY [1/10 X] | PARTICL. CONC. EX10E-41 | | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-5] | | FREGUENCY |
| 00200 | 000 | 2015 | | 8 | | 000 | < 00015 | | 040 | 8 | | 017 |
| 00100 - 00100 | 010 | 013 - 00030 0030 - 00045 | | 00000 | | | 00000 | - 00043 | 030 | 00000 | - 00076 | 037 |
| 00150 - 00200 00200 - 00250 | 010 | 00045 - 00060 00060 - 00075 | 000 | 000045 | - 000060 | 021 021 | 09000 | - 000000 | 020 | 00100 | - 00100 | 00 00 00 00 |
| ı | 041 | ı | | 00075 | 06000 - | 021 | 00075 | 06000 - | 020 | 00125 | - 00150 | 037 |
| 00300 - 00350 | 88 | 00090 - 00103 | 010 | 00000 | 20103 | 2 8 | 06000 | 20100 | 030 | 05.50 05.50 05.50 | - 00175 | 012 |
| 1 | 062 | ı | | - | _ | 010 | 00120 | _ | 040 | 00200 | • | 012 |
| 00200 - 00500 | 031 | 00150 - 00200 | 8 | 00120 | - 00200 | 042 | 00120 | - 00200 | 102 | 00222 | - 00250 | 012 |
| ſ | 0 | ı | | 00200 | 00220 | 000 | 00200 | - 00250 | 071 | 00250 | - 00275 | 8 |
| 00800 - 01000 | 166 | 00250 - 00300 | 020 | 00220 | 00300 | 021 | 00520 00300 | 00300 | 180 | 00273 | - 00300 | 012 |
| • | 041 | ı | | | 00900 - | 80 | 00400 | 00900 - | 122 | 00325 | - 00350 | 025 |
| 01500 - 02000 | 083 | 00600 - 00900 | 154 | 00900 | - 00400 | 157 | 00900 | - 00400 | 163 | 00320 | - 00400 | 022 |
| ı | 660 | ı | • | 00600 | 01200 | 263 | 00600 | - 01500 | 132 | 00400 | - 00300 | 137 |
| i | 052 | • | | 01200 | - 02500 | 189 | 01200 | - 02200 | 020 | 00200 | - 00750 | 237 |
| 04000 - 06000 | 35.5 | 02500 - 05000 | 183 | 02500 | 00000 | 042 | 05200 | - 05000 | 88 | 953 | 01000 | 225 |
| 2000 | 8 | 0000 | | 8 | | 38 | > 10000 | | 38 | 2 | _ | 8 |
| NO OF MEASUR. | +0000+ | NO OF MEASUR. | +00091 | NO OF ME | MEASIJR. | +00005 | NO OF H | MEASUR. | 86000+ | NO OF H | MEASUR. | +000080 |
| MEAN [X10E-2] | +01894 | MEAN [X10E-2] | +01925 | HEAN | [X10E-3] | +01000 | HEAN | [X10E-4] | +00455 | HEAN | [X10E-5] | +00633 |
| SIGMA [X10E-2] | +01731 | SIGMA [X10E-2] | +01303 | SIGMA | [X10E-3] | +00769 | SIGMA | [X10E-4] | +00382 | SIGNA | (X10E-5) | +00346 |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 40 GARMISCH (VALLEY 740 M)

PERIOD: 1970-1980

PARAMETER RELATIVE HUMIDITY <40%

| PARAMETER* RELATIVE HUMIDITY 4402 | KELM! I | VE TO | TIDIL | -40x | | | | | | | | | |
|-----------------------------------|-----------------------|-------------------------------|--------------------------------|-----------------------|----------------------------|--------------|-----------------------|----------------------------|--------------|-----------------------|----------------------------|---------------|------------|
| D1 = 0.23 MI | | D2 = 0 | ■ 0. 45 HI | | D3 = 0. 9 | 0. 93 MI | | D4 = 2. | 1H 00 | | DS = 4. | 4. 50 HI | |
| RES NR.: 092 | | RES. NR. : | t : 093 | | RES. NR. : | : 094 | | RES. NR. | \$ 60 | | RES. NR. : | 360 :: | |
| FARTICL CONC. FI | FREGUENCY [1/10 X] | PARTIC [X1 | PARTICL. CONC. F [X10E-2] [| FREQUENCY [1/10 X] | PARTICL. CONC. (X10E-3) | _ | FREQUENCY [1/10 x] | PARTICL. CONC. (X10E-41 | | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-5] | | FREGUENCY |
| 00200 > | 890 | 00200 > | 000 | 026 | < 00150 | 00 | 890 | < 00050 | ŝ | 027 | × 00200 | 200 | 000 |
| ı | 980 | 00200 | 01000 | 190 | | - 00300 | 083 | 00020 | | 96:0 | 00200 | - | 910 |
| 01500 - 01500 | 90 | 01200 | 05200 | 020 070 | 00300 | - 00450 | 051 | 90100 | - 00200 | 036 | 00400 | 00800 | 000 490 |
| 02000 - 02500 | 034 | 02000 | - 02500 | 032 | | - 00750 | 042 | 00200 | - 00220 | 0.45 | 00800 | - 01000 | . 027 |
| 02200 - 03000 | 043 | 02200 | - 03000 | 026 | - 06700 | - 00800 | 076 | 00220 | - 00:300 | 027 | 0000 | - 01200 | 092 |
| ī | 034 | 03000 | - 03200 | 044 | 00600 | - 01050 | 082 | 00:00 | - 00320 | 600 | 01200 | - 01400 | 8 |
| ı | 025 | 03200 | 04000 | 026 | 01050 | - 01200 | 150 | 00320 | - 00400 | 936 | 01400 | - 01600 | 073 |
| 00000 - 00000 | 050 | 000 | 04500 | 017 | 01200 | _ | 100 | 00400 | 00200 | 072 | 01600 | | 082 |
|) | 3 | 3 | 00000 | eco O | | 20010 - | 10 | 9000 | 00900 - | 7/0 | 00810 | 00070 | 2 |
| • | 031 | 02000 | - 00000 | 970 | 01200 | - 01920 | 025 | 00900 | - 00700 | 180 | 02000 | - 02250 | 980 |
| • | 034 | 00090 | 02000 - | 020 | 01910 | - 01800 | 042 | 00200 | 00800 - | 980 | 02220 | - 02500 | 953 |
| 00001 - 00000 | 2 6 | 8 6 6 | 0000 | 3 | 01900 | 02000 | | 888 | 00600 | 0.54 | 0520 | 03000 | 490 |
| , | 112 | 0000 | - 15000 | 123 | | 03000 | 25. | 00010 | - 01250 | 127 | 03200 | - 04000 | 073 |
| 25000 - 40000 | 077 | 15000 | - 20000 | 070 | 03000 | - 04000 | 042 | 01250 | - 01500 | 060 | 04000 | - 05000 | ₽90 |
| ı | 090 | 20000 | 90000 | 020 | 04000 | 00090 - | 920 | 01200 | - 02000 | 601 | 02000 | - 07000 | 146 |
| ı | 8 | 30000 | 40000 | 017 | 00090 | 10000 | 034 | 00020 | - 03000 | 072 | 00020 | 00060 | 910 |
| 90000 - 100000 >100000 | 8 8 8 | - 40000 - 50000 - 50000 | 0000 - 0000 | 88 | 10000 - | - 20000 - | 88 | - 00000 | 00090 - | 910 0 | 09000 - | - 12000 | 88 |
| | | | ! ! | | | } | } | <u> </u> | } | } | : | } | } |
| NO OF HEASUR. | +00116 | ₩ 9 | NO OF MEASUR | +00113 | NO OF THE | MEASUR. | +00117 | N 05 | MEASUR | 100110 | NO OF | MEASUR. | +00100+ |
| MEAN [X10E-2] | 05/1110 | MEAN | [X10E-2] | +07939 | MEAN | [X10E-3] | +01676 | MEAN | (X10E-4) | +00957 | MEAN | [X10E-5] | +02710 |
| SIGMA CX10E-23 | +13777 | STOPPE | (X10E-2) | +07142 | STGMA | (X10E-3) | +01688 | STONA | [X10E-4] | +00751 | SIGNA | [X10E-5] | +01790 |
| | | | | | | | | | | | | | |

PERIOD: 1970-1980

PARAMETER= RELATIVE HUMIDITY 41-50%

TABLE: 41

GARMISCH (VALLEY 740 M)

| - 10 | = 0 23 HI | | D2 = 0 | D2 = 0. 45 HI | | D3 = 0. | = 0.93 MI | | D4 = 2 | 2. 00 MI | | DS = 4.50 HI | 50 MI | |
|----------------------------|-----------|-----------------------|------------------------|------------------------------|-----------------------|----------------------------|--------------------|-----------------------|----------------|--------------------|-----------------------|-------------------------|----------|-----------------------|
| RES. NR. | . 402 | | RES. NR. : | t. : 403 | | RES. NR. : | | | RES MR : | 405 | | RES. NR. : | . 406 | |
| PARTICL, CONC. EXINE-21 | | FREQUENCY [1/10 %] | PARTIC CX1 | PARTICL. CONC. 1 [X10E-2] | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-3] | | FREGUENCY [1/10 X] | PARTIC | PARTICL. CONC. FF | FREGUENCY [1/10 %] | PARTICL. CONC. [X10E-5] | | FREGIENCY [1/10 %] |
| < 00500 00500 - | 500 | 123 | - 00200 00200 > | 500 - 01000 | 039 | < 00150 00150 - | 150 | 052 | 000500 - 00050 | 050 | 053 | < 00200 - 00200 | 100 | 020 |
| 01000 | - 01500 | | 01000 | - 01500 | | 00300 | - 00430 | 084 | 00100 | - 00130 | 033 | 00400 | 00900 | 041 |
| 02000 | - 02200 | | 02000 | - 02500 | | 00900 | - 00750 | 071 | 00200 | - 00250 | 026 | 00900 | - 01000 | 034 |
| 02500 | - 03000 | | 02200 | - 03000 | | 00750 | 00600 - | 120 | 00220 | - 00300 | 020 | 01000 | - 01200 | 041 |
| 03200 | - 04000 | 8 <u>1</u> | 03200 | - 03500 | 072 059 | 00800 | - 01050 | 038 060 | 00300 | - 00350 | E 0 | 01700 | - 01400 | 111 |
| 04000 05000 | - 05000 | 03 8 084 | 0400 04500 04500 | - 04500 | 052 026 | 01200 | - 01350 - 01500 | 058 045 | 00400 | - 00500 | 126 093 | 00910 | - 01800 | 034 034 |
| 06000 | - 07000 | | 02000 | 00090 - | 063 | 01500 | - 01650 | 045 | 00900 | - 00700 | 053 | 0200 | - 02250 | 920 |
| 07000 08000 | 00001 | 860 | 06000 | - 07000 | 032 | 01650 | - 01800 | 245 | 00200 | 00800 | 023 | 02250 | - 02500 | 034 |
| 12000 | - 15000 | | 0000 | 15000 | | 02000 | - 02500 | 058 | 00000 | - 01000 - 01250 | 020 073 | 03000 | 03200 | 083 013 |
| 23000 | 40000 | 240 | 000 | - 20000 | 033 | 03000 | 00000 | 033 | 01010 | 00810 | Š | 2 | | 670 |
| 40000 | 00009 - | | 20000 | 30000 | | 04000 | 00090 - | 039 | 01500 | - 02000 | 113 | 02000 | - 07000 | 083 |
| 0000 | 100000 | 9 5 | 0000 | 0000 | e 600 | 00090 | 10000 | 035 | 05000 | 03000 | 073 | 02000 | 00060 | 8 8 |
| >100000 | | | > 50000 | • | | > 20000 | • | 3 | 00000 < | _ | 8 8 | > 12000 | | 88 |
| 2 | MEASUR | +00124 | <u>₹</u> | MEASUR. | +00152 | N 05 | MEASIJR. | +00153 | - G- | MEASUR. | +00150 | NO OF H | MEASUR. | +00143 |
| MEAN | [X10E-2] | +07926 | HEAN | [X10E-2] | +06277 | MEAN | [X10E-3] | +01500 | MEAN | [X10E-4] | 09600+ | MEAN | [X10E-5] | +02541 |
| SIGNA | (X10E-21 | +11536 | SIGMA | [X10E-2] | +06834 | SIGMA | [X10E-3] | +01494 | SIGMA | [X10E-43 | 09800+ | SIGMA | [X10E-5] | +01963 |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 42 GARMISCH (VALLEY 740 M)

PERIOD: 1970-1980

PARAMETER = RELATIVE HUMIDITY 51-50%

| = | = 0.23 MI | | 02 = 0 | D2 = 0. 45 HI | | D3 = 0. 93 MI | . 93 HE | | 04 = 2 | 2.00 MI | | DS = 4.50 HZ | 30 HI | |
|------------------------------|----------------------------|-----------------------|------------------|----------------------------|-----------------------|---------------|----------------------------|-----------|---------------|--------------------------------|-------------|--------------|----------------------------|-----------------------|
| RES. NR. | t.: 407 | | RES. NR. : | . : 408 | | RES. NR. : | .: 409 | | RES. NR. : | .: 410 | | RES. NR | . 411 | |
| PARTIC LX3 | PARTICL. CONC. 1X10E-23 | FREGUENCY [1/10 X] | PARTIC | PARTICL. CONC. [X10E-2] | FREGNENCY [1/10 X] | PARTIC | PARTICL. CONC. [X10E-3] | FREGUENCY | PARTIC [X1 | PARTICL. CONC. F [X10E-4] [| FREGUENCY (| PARTIC | PARTICL. CONC. (X10E-51 | FREGUENCY [1/10 %] |
| 00200 | | 990 | 00 <u>2</u> 00 > | | | < 00130 | | | 05000 > | | 990 | < 00200 | | |
| 0000 6000 0000 0000 | 01000 | 076 072 | 0000 | 01000 | 070 | 00130 | 00300 | 137 | 00000 | 00100 | 023 | 00200 | 1 00400 | 061 |
| 01200 | - 02000 | | 01200 | - 02000 | | 00420 | 00900 - | | 00130 | - 00200 | 046 | 00900 | 00800 - | |
| 00070 | 00220 - | 1 90 | 00020 | - 02200 | 6 074 | 00900 | - 00750 | - T- 084 | 00200 | - 00220 | 029 | 00800 000 | - 01000 | 690 |
| 02200 | 03000 - | | 02200 | 00000 - | | 00750 | 00600 - | | 00250 | - 00300 | 037 | 00010 | - 01200 | |
| 03000 | 03200 - | | 00000 | - 03200 | | 00600 | 01020 | | 00:300 | - 00350 | 033 | 01200 | - 01400 | |
| 0000 | 000000 | 0.00 | 03300 | 04000 | 033 | 01030 | - 01200 | 990 | 0030 | 00400 | 037 | 01400 | 00910 | 077 |
| 05000 | 00090 - | | 04200 | - 02000 | | 01350 | - 01500 | | 00200 | 00900 - | 8 | 01800 | - 05000 | |
| 00090 | - 07000 | 044 | 02000 | 00090 - | 85 | 01200 | - 01650 | 048 | 00900 | - 00700 | 020 | 02000 | - 02250 | 043 |
| 02000 | 00080 - | | 00090 | - 07000 | 029 | 01650 | - 01800 | - | 00200 | - 00800 | 075 | 02220 | - 02500 | |
| 00080 | 10000 | | 00020 | - 08000 | | 00810 | - 02000 | | 00800 | - 00600 | 990 | 02200 | - 03000 | |
| 2000 | 2000 | | 0000 | 10000 | | 02000 | - 02200 | | 00600 | 00010 - | 920 | 03000 | - 03200 | 040 |
| 13000 | - 25000 | 093 | 10000 | - 13000 | 660 | 05200 | - 03000 | ₩90 | 01000 | - 01250 | 062 | 03200 | - 04000 | |
| 25000 | - 40000 | | 15000 | - 20000 | 070 | 03000 | - 04000 | 044 | 01250 | - 01500 | 081 | 04000 | - 02000 | 040 |
| 40000 | 00007 | | 20000 | 30000 | 041 | 04000 | 00090 - | 048 | 01200 | - 02000 | 062 | 02000 | - 07000 | |
| 00009 | 00008 - | | 30000 | 40000 | | 00090 | - 10000 | / | 02000 | - 03000 | 062 | 02000 | 00060 - | |
| 80000 | 000001 - | | 40000 | 100000 | | 10000 | - 20000 | | 03000 | 00090 - | 033 | 00060 | - 12000 | 8 |
| ^100000 | 000 | 000 | 20000 | 000 | 000 | > 20000 | 8 | 8 | 00090 < | 000 | 000 | > 12000 | 8 | 000 |
| ₩ 92 | NO OF MEASUR. | +00247 | NO OF | NO OF MEASUR. | +00241 | NO OF MEASUR. | MEASUR. | +00243 | 75 GF | NO OF MEASUR. | +00239 | NO OF MEASUR | HEASUR. | +00244 |
| MEAN | [X10E-2] | +07152 | HEAN | [X10E-2] | +06644 | MEAN | (X10E-3) | 1 +01422 | MEAN | [X10E-4] | +00867 | MEGN | [X10E-5] | +02212 |
| SIGHA | [X10E-2] | +09164 | STOPPA | CX10E-23 | +07031 | STOWA | (x10E-3) | +01472 | SIGMA | [X10E-4] | +00766 | STOMA | CX10E-53 | +01814 |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 43 GARMISCH (VALLEY 740 M)

PERIOD: 1970-1980

PARAMETER RELATIVE HUMIDITY 61-70%

| - - | ■ 0, 23 MI | | 20 | = 0. 45 MI | | D3 = 0 | 0. 93 MI | | D4 = 2 | = 2.00 HI | | DS = 4. 50 HI | 1H 05 | |
|---|---|---|---|---|--------------------------|---|---|--------------------------|---|--|--------------------------|---|---|--------------------------|
| RES. NR. : | t : 412 | | RES. NR. : | R.: 413 | | RES. NR. : | | | RES. NR. : | 415 | | RES NR. | 416 | |
| FARTIC | FARTICL, CONC. TX10E-23 | FREGUENCY [1/10 X] | PARTIC | PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 X] | PARTICL. CONC. CX10E-31 | | FREQUENCY [1/10 X] | PARTIC | PARTICL, CONC. F | FREGUENCY (1/10 X) | PARTICL, CONC. [X10E-51 | | FRECHENCY |
| C 00500 00500 - 01000 - | _ | 077 | 900 1000 1000 | < 00500 500 - 01000 000 - 01500 | 050 | 00150 - 00150 - 00130 - 001 | 150 - 00300 - 00450 | 043 | < 00050 00050 - 00100 - | 050 - 00100 | 051 | C 00200 - 00200 - 00400 - 0 | 200 - 00400 - 95500 | 012 048 |
| 01500 | - 02000 | 083 | 01500 | 1.1 | | 00430 | - 00600 | 08% | 00200 | - 00200 | 027 | 00900 | 00000 - | 057 |
| 02500 03000 03500 | - 03000 - 03500 - 04000 | | 02500 03000 03500 | - 03500 | 043 | 00750 00900 01050 | - 00900 - 01050 - 01200 | 050 050 | 00250 00300 00350 | - 00300 | 027 | 01000 | - 01200 | 065 089 053 |
| 04000 03000 | 00090 | 073 | 04500 | - 04500 | | 01200 | - 01350 | 019 | 00400 | - 00500 | 071 | 01600 | - 01800 | 965 953 |
| 02000 07000 08000 10000 15000 | - 07000 - 08000 - 10000 - 15000 - 25000 | 038 035 081 085 | 03000 04000 04000 10000 | - 06000 - 07000 - 08000 - 15000 | 062 023 047 054 | 01500 01650 01800 02000 02500 | - 01650 - 01800 - 02000 - 02500 - 03000 | 015 039 074 039 | 00600 00700 00800 00900 01000 | - 00700 - 00800 - 00900 - 01000 | 047 075 027 055 | 02000 02250 02500 03000 03500 | - 02250 - 02500 - 03000 - 03500 - 04000 | 061 065 089 028 |
| 25000 - 40000 - 60000 - 80000 - 710000 | - 40000 - 60000 - 80000 - 100000 | 000000000000000000000000000000000000000 | 15000 20000 30000 40000 30000 | 000 - 20000 000 - 30000 000 - 40000 000 - 50000 > 50000 | 0331 | 03000 - 04000 - 06000 - 10000 - > 20000 | - 04000 - 06000 - 10000 - 20000 | 054 023 000 000 | 01250 - 01500 - 02000 - 03000 - > 06000 | - 01500 - 02000 - 03000 - 06000 | 047 033 033 | 04000 - 05000 - 07000 - 09000 - > 12000 | - 05000 - 07000 - 09000 - 12000 | 036 053 000 000 |
| S | NO OF MEASUR. | +00257 | 5 5 7 7 8 | MEASUR. | +00255 | 25 OF | MEASUR. | +00235 | ¥ 9 | MEASUR. | +00253 | NO OF | MEASUR. | +00245 |
| MEDA | CX10E-23 | +06398 | HEAN | (X10E-23 | +05323 | HEAN | [X10E-3] | +01348 | HEAN | [X10E-4] | +00793 | HEAN | (X10E-5) | +02097 |
| 31044 | (X10E-21 | 108224 | SIGHA | [X10E-2] | +06156 | STOMA | (X10E-31 | +01529 | STOMA | [X10E-4] | +00782 | SIGMA | EX10E-51 | \$6910+ |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PERIOD: 1970-1980

TABLE: 44 GARMISCH (VALLEY 740 M)

PARAMETER= RELATIVE HUMIDITY 71-80%

| DI = 0.23 HI | | 02 = 0 | н 0. 45 м1 | | D3 = 0. | 0. 93 MI | | 04 = 2. | 2. 00 MI | | 8 . 4 | = 4.50 MI | |
|---------------------------|-----------------------|------------------|--------------------------------|---------------------|----------------------------|----------|-----------------------|----------------------------|----------|-----------|----------------------------|-----------|-----------|
| RES. NR. : 417 | | RES. NR. | .: 418 | | RES. NR. : | . 419 | | RES. NR. | . 420 | | RES. NR. | . 421 | |
| FARTICL CONC. EX10E-21 | FREGUENCY [1/10 x] | PARTIC [X1 | PARTICL, CONC. F [X10E-2] [| REGMENCY 1/10 X1 | PARTICL, CONC. [X10E-3] | _ | FREGUENCY [1/10 X] | PARTICL. CONC. [X10E-4] | | FREGUENCY | PARTICL. CONC. [X10E-5] | | FREGIENCY |
| 00200 > | 093 | 00200 < 00200 | 200 | 127 | < 00150 | 20 | 087 | < 00020 | 220 | 053 | < 00200 | 002 | 003 |
| 00200 - 01000 | 123 | 00200 | 00010 | 148 | 00150 | | 175 | 000020 | | 061 | 00200 | | 075 |
| 1 1 | | 0000 | 02000 | 074 | 00450 | 00900 - | 131 073 | 00100 1500 | - 00200 | 500 | 2000 | 00800 | 057 |
| 02000 - 02500 | | 02000 | - 02200 | 085 | 00900 | - 00750 | 160 | 00700 | - 00250 | 023 | 00800 | - 01000 | 162 |
| 02500 - 03000 | 690 0 | 02200 | - 03000 | 033 | 00750 | - 00800 | 036 | 00250 | - 00300 | 061 | 01000 | - 01200 | 980 |
| , | | 03000 | - 03:200 | 053 | 00600 | - 01050 | 051 | 00300 | - 00320 | 660 | 01200 | - 01400 | 190 |
| , | | 03200 | 04000 | 039 | 01050 | - 01200 | 043 | 00320 | - 00400 | 028 | 01400 | - 01600 | 980 |
| i | | 04000 | | 028 | 01200 | _ | 040 | 00400 | - 00500 | 990 | 01600 | _ | 054 |
| 0000 - 000C | 500 | 200 | 00000 - | 10 | 01320 | 01200 - | 980 | 00200 | 00900 - | 670 | 01800 | - 05000 | 043 |
| ı | | 02000 | 00090 - | 049 | 01500 | - 01650 | 014 | 00900 | - 00700 | 046 | 02000 | - 02250 | 190 |
| ı | | 00000 | - 02000 | 031 | 01650 | - 01800 | 025 | 00200 | 00800 - | 032 | 02220 | ~ 02500 | 014 |
| ı | | 03/20 | 00080 - | 024 | 01800 | - 02000 | 010 | 00800 | - 00300 | 053 | 02200 | - 03000 | 046 |
| 1 | | 00080 | | 021 | 02000 | - 02200 | 047 | 00600 | 00010 - | 028 | 03000 | - 03200 | 68.0 |
| 15000 - 25000 | 077 | 0000 | - 15000 | 067 | 02200 | - 03000 | 980 | 00010 | - 01250 | 020 | 03200 | - 04000 | 036 |
| 25000 - 40000 | 0 028 | 15000 | - 20000 | 021 | 03000 | - 04000 | 021 | 01250 | - 01500 | 035 | 04000 | - 02000 | 036 |
| ı | | 20000 | 30000 | 053 | 04000 | 00090 - | 051 | 01200 | - 02000 | 053 | 02000 | - 02000 | 680 |
| • | | 30000 | - 40000 | 210 | 00090 | - 10000 | 021 | 02000 | - 03000 | 035 | 02000 | - 09000 | 035 |
| 000001 - 00000 | | 40000 | 20000 | 8 | 10000 | - 20060 | 900 | 03000 | 00090 - | 025 | 00060 | - 12000 | 000 |
| 100000 | 000 | 20000 | 8 | 000 | > 20000 | 8 | 000 | 00090 < | 000 | 000 | > 12000 | 000 | 000 |
| 40 OF MEASUR. | +00283 | NO OF MEASUR | MEASUR. | +00282 | NO OF MEASUR. | EASUR. | +00273 | NO OF MEASUR. | EASUR. | +00278 | NO OF MEASUR. | EASUR. | +00277 |
| HEAN [X10E-2] | 1 +07445 | HERM | [X10E-2] | +05344 | MEAN | [X10E-3] | +01209 | MEAN | [X10E-4] | +00665 | MEAN | [X10E-53 | +01876 |
| SIGNA FX10E-21 | 1 +11186 | STOM | [X10E-2] | +07477 | SIGMA | (X10E-31 | +01510 | SIGMA | fx10F-41 | +00736 | STOMO | (x10E-51 | +01747 |
| | | | | | 1 | | | | | | | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

The second secon

TABLE: 45 GARMISCH (VALLEY 740 M)

PARAMETER - RELATIVE HUMIDITY 81-90%

| DI = 0 23 MI | | D2 = 0 | D2 = 0. 45 HI | | | D3 = 0. | 0. 93 HI | | D4 = 2 | D4 = 2.00 HI | | 100 100 100 100 100 100 100 100 100 100 | = 4.50 HI | |
|----------------------------|-----------|------------|----------------------------|----------|-----------------------|----------------------------|-------------------------|-----------|----------|---------------------------|-----------|--|----------------------------|-----------------------|
| RES. NR.: 422 | - | RES. NR. : | . : 423 | m | | RES. NR. : | : 424 | | RES. NR. | 1 : 425 | | RES. NR. : | 1: : 426 | |
| PAPTICL. CONC. [X10E-2] | FREQUENCY | PARTIC | PARTICL. CONC. [X10E-2] | <u> </u> | FREGUENCY [1/10 X] | PARTICL. CONC. [X10E-3] | TICL. CONC. [X10E-3] | FREGUENCY | | PARTICL, CONC. (CX10E-41) | FREGUENCY | PARTIC Ex1 | PARTICL. CONC. EX10E-51 | FREQUENCY [1/10 %] |
| 00500 > | 103 | 00200 | 200 | | 124 | C 00150 | 061 | | 00030 | 030 | 690 | C 00200 | 200 | 5.0 |
| | • | 00200 | _ | 01000 | 124 | 00120 | 00000 - | | 00000 | - 00100 | , – | 00200 | - 00400 | |
| ı | | 01000 | - 01 | 01500 | 111 | 00300 | - 00450 | | 80100 | - 00130 | | 00400 | - 00900 | |
| ı | | 01200 | | 02000 | 690 | 00450 | 00900 - | • | 00130 | - 00200 | | 00900 | - 00800 | |
| 02000 - 02200 | 048 | 02000 | 1 02 | 02200 | 083 | 00600 | - 00750 | 680 | 00700 | - 00250 | 080 | 00800 | - 01000 | 105 |
| 02500 - 03000 | 00 054 | 02200 | - 03 | 03000 | 020 | 00750 | - 00600 | 057 | 00220 | - 00300 | 890 | 01000 | - 01200 | 990 |
| 03000 - 03200 | 00 051 | 03000 | - 03 | 03200 | 033 | 00600 | - 01050 | 031 | 00300 | - 00320 | _ | 01200 | - 01400 | • |
| í | | 03200 | 5 | 04000 | 038 | 01050 | - 01200 | | 00320 | - 00400 | | 01400 | - 01600 | |
| 1 | | 04000 | 1 | 04500 | 020 | 01200 | - 01350 | _ | 00400 | - 00200 | 890 | 01600 | - 01800 | |
| 00090 - 00050 | 00 054 | 04500 | 8 | 02000 | 610 | 01350 | - 01300 | 012 | 00200 | - 00900 | 890 | 01800 | - 02000 | 034 |
| 06000 - 07000 | 00 027 | 02000 | 8 | 00090 | 038 | 01500 | - 01650 | 600 | 00900 | - 00700 | 940 | 02000 | - 02250 | 030 |
| ı | | 00090 | 1 07 | 00020 | 022 | 01650 | - 01800 | - | 00700 | 00800 | | 02220 | - 02500 | |
| ı | | 00000 | 90 | 00080 | 028 | 01800 | - 02000 | | 00800 | - 00800 | | 02200 | - 03000 | |
| ı | | 00000 | 01 | 10000 | 033 | 02000 | - 02200 | | 00600 | 00010 | 013 | 03000 | - 03200 | 037 |
| 15000 - 25000 | 00 079 | 0000 | | 2000 | 920 | 0520 | 03000 | 010 | 01000 | - 01250 | | 03200 | - 04000 | |
| , | | 15000 | - 20 | 20000 | 033 | 03000 | - 04000 | 044 | 01250 | - 01500 | 027 | 04000 | - 02000 | 046 |
| ł | | 20000 | 8 | 30000 | 044 | 04000 | 00090 | _ | 01200 | - 02000 | | 02000 | - 02000 | |
| 1 | | 30000 | 9 | 40000 | 013 | 00090 | 10000 | | 02000 | - 03000 | | 00000 | - 09000 | |
| 80000 - 100000 | | 40000 | ନ | 50000 | 8 | 10000 | - 20000 | 8 | 03000 | 00090 | 012 | 00060 | - 12000 | |
| > 100000 | 9 | 00005 | 000 | | 8 | > 2000 | 900 | 000 | 00090 < | 000 | 000 | > 12000 | 000 | 3 |
| NO OF MEASUR. | +00:329 | ₩ 92 | NO OF MEASUR. | | +00:314 | NO OF MEASUR. | MEASUR. | +00314 | NO OF | NO OF MEASUR. | +00322 | N | NO OF MEASUR. | +00323 |
| MEAN (X10E-23 | 21 +07249 | MEAN | [X10E-2] | | 105282 | MEAN | tx10E-33 | +01132 | MEAN | [X10E-4] | +00484 | MERN | [X10E-5] | +01914 |
| SION (X10E-21 | 13 +09997 | SIGMA | (X10E-21 | | +06802 | SIGMA | [X10E-3] | +01586 | STUMO | [X10E-43 | +00276 | SIGHA | (X10E-5) | +01747 |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

The state of the s

PERIOD: 1970-1980

GARMISCH (VALLEY 740 M) PARAMETER = RELATIVE HUMIDITY >90%

TABLE: 46

| 5 | = 0. 23 MI | | D2 = 0 | D2 = 0. 45 'MI | | 03 = 0. | 0. 93 HI | | 04 = 2. | 2. 00 MI | | DS - 4.50 HI | 30 MI | |
|----------------------------|------------|-----------------------|------------|----------------------------|-----------------------|----------------------------|----------|-----------------------|----------------------------|----------|-----------------------|----------------------------|----------|-----------|
| RES. NR. | . 107 | | RES. NR. : | 108 | | RES. NR. | . 109 | | RES. NR. | 110 | | RES. NR. | 111 | |
| FARTICL. CONC. [X10E-2] | | FREGUENCY [1/10 X] | PARTIC | PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 X] | PARTICL. CONC. (X10E-31 | | FREQUENCY (1/10 %) | PARTICL. CONC. [X10E-4] | | FREGUENCY (1/10 X) | PARTICL. CONC. [X10E-5] | | FREQUENCY |
| 00200 > | | 120 | 00500 > | | | 5 | | 103 | < 00020 | | 058 | < 00200 | | 600 |
| 00200 | 01000 | 601 | 0000 | 0000 | | | _ | 242 | 05000 | 00100 - | 092 | 00200 | - 00400 | 028 |
| | 05000 | 0.00 | 0000 | - 02000 | 1112 | 00000 | 1 00600 | 760 760 | 00100 | - 00200 | 078 | 0000 | 00800 | 711 |
| 02000 | - 02500 | 080 | 02000 | - 02500 | | 00900 | - 00750 | 074 | 00200 | - 00250 | 102 | 00800 | - 01000 | 078 |
| 02300 | 03000 | 052 | 02200 | 03000 | 053 | 00750 | - 00900 | 023 | 00220 | - 00300 | 063 | 01000 | - 01200 | 890 |
| 03000 | - 03200 | 052 | 03000 | - 03200 | _ | 00600 | - 01050 | 024 | 00300 | - 00:350 | 890 | 01200 | - 01400 | 078 |
| 03200 | - 04000 | 052 | 03200 | - 04000 | | 01020 | - 01200 | 014 | 00320 | - 00400 | 053 | 01400 | - 01600 | 923 |
| 8 | _ | 033 | 04000 | - 04500 | | 01200 | - 01320 | 024 | 00400 | - 00200 | 043 | 01600 | - 01800 | 029 |
| 02000 | 00090 - | 043 | 94500 | - 03000 | 024 | 01320 | - 01500 | 014 | 00200 | - 00900 | 043 | 01800 | - 02000 | 043 |
| 00090 | - 07000 | 014 | 02000 | - 06000 | 053 | 01200 | - 01650 | 100 | 00900 | ~ 00700 | 058 | 02000 | - 02250 | 048 |
| 00000 | 00080 - | 023 | 00090 | - 02000 | 034 | 01650 | - 01800 | 014 | 00200 | - 00800 | 610 | 02220 | - 02200 | 024 |
| 00080 | 10000 | 071 | 00020 | - 08000 | | 01800 | - 02000 | 019 | 00800 | - 00600 | 024 | 0220 | - 03000 | 039 |
| 0000 | 15000 | 080 | 00080 | 00001 | | 02000 | _ | 014 | 00600 | • | 024 | 00000 | 03200 | 029 |
| 2000 | - 73000 | * 7 | 00001 | - 13000 | 028 | 02200 | - 03000 | 024 | 0000 | - 01250 | 043 | 03200 | - 04000 | 023 |
| 25000 | 40000 | 033 | 15000 | - 20000 | 029 | 03000 | - 04000 | 024 | 01250 | - 01500 | 024 | 04000 | - 05000 | 920 |
| 40000 | - \$0000 | 014 | 20000 | - 30000 | 028 | 04000 | 00090 - | 039 | 01200 | - 02000 | 034 | 02000 | - 02000 | 023 |
| 00009 | - 80000 | 000 | 30000 | - 40000 | * 00 | 00090 | - 10000 | 024 | 02000 | - 03000 | 610 | 00020 | 00060 - | 014 |
| 00008 | 100000 | 000 | 40000 | 150000 | 8 | 00001 | - 20000 | 8 | 03000 | 00070 - | 014 | 00060 | - 12000 | 8 |
| 000001 < | 900 | 000 | > 50000 | 0000 | 000 | > 20000 | 00 | 000 | 00090 < | 000 | 000 | > 12000 | 000 | 000 |
| NO OF 1 | MEASUR. | +00210 | <u>8</u> | NO OF MEASUR. | +00209 | NO OF MEASUR. | EASUR. | +00200 | NO OF P | MEASUR | +00205 | N 05 | MEASUR. | +00202 |
| HEAN | [X10E-2] | +07037 | HEAN | fX10E-23 | +05346 | MERN | [X10E-3] | +01203 | HEAN | [X10E-41 | +00200+ | MEAN | (X10E-51 | +01888 |
| SIGMA | [X10E-2] | +08650 | SIGMA | [X10E-2] | +06523 | SIGMA | [X10E-3] | +01819 | SIGMA | [X10E-4] | +00625 | SIGMA | [X10E-5] | +910+ |
| | | | | | | | | | | | | | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PERIOD: 1970-1980

TABLE: 47

PARAMETER - RELATIVE HUMIDITY <40%

WANK PEAK 1780 M

| D1 = 0.23 M | | B2 = 0. 45 HI | 15 MI | | D3 = 0.93 HI | P3 MI | | D4 = 2. | 2. 00 HI | | D5 = 4. 50 HI | 50 HI | |
|--|---------------------------------|---|--|--------------------------|---|---|--------------------------|---|---|-------------------------------|---|---|---------------------------------|
| RES. NR.: 097 | | RES. NR. : | 960 | | RES. NR. | 660 : | | RES. NR. : | 001 | | RES. NR. : | 101 : | |
| PARTICL, CONC. EX10E-23 | FREGUENCY [1/10 %] | PARTICL, CONC. [X10E-2] | | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-3] | | FREGUENCY | PARTICL. CONC. EX10E-41 | | FREGUENCY E1/10 X3 | PARTICL. CONC. [X10E-5] | | FREGUENCY |
| C D5200 C D5200 C D5200 C D5200 C D5400 C D5400 C D5400 C D5400 C D5400 C D5400 | 082 136 112 112 068 | 00100 00100 00200 00300 00400 | 00 00200 1 1 00300 1 00400 | 162 157 088 059 | 00025 - 00025 - 00026 - 00076 | .25 - 00050 - 00076 - 00100 - 00150 | 058 087 135 097 | <pre></pre> |)25 - 00050 - 00076 - 00100 - 00125 | 24 1000 94 0000 96 0000 | <pre></pre> | .25 - 00050 - 00076 - 00100 - 00105 | 010 020 045 070 |
| 11111 | | | - 00600 - 00750 - 01000 - 01500 | 054 054 073 073 | | 00250 00250 00350 00350 | 019 063 043 009 | 00125 00150 00175 00200 00250 | 00150 - 00175 - 00200 - 00250 | 0029 034 044 | 00125 00135 00175 00200 00250 | - 00150 - 00175 - 00200 - 00250 - 00300 | 055 050 065 125 070 |
| 02000 - 02500 02500 - 03000 03000 - 03500 03500 - 04000 | 078 043 034 039 | 02500 02500 03000 04000 | 02500 03000 04000 05000 | 039 029 019 029 | 00400 00430 00300 00600 00700 | 00450 00500 00600 00700 | 019 029 033 082 | 00300 00350 00400 00450 00500 | - 00350 - 00450 - 00500 - 00500 | 024 044 019 019 | 00300 00350 00450 00500 | 00350 00450 1 00500 1 00500 | 060 040 040 000 |
| 05000 - 06000 06000 - 08000 08000 - 10000 10000 - 15000 | 000 000 000 | 07000 - 09000 - 12000 - 15000 - > 20000 | - 09000 - 12000 - 15000 - 20000 | 014 000 000 000 | 01000 - 01500 - 02000 - 03500 - > 06000 | - 01500 - 02000 - 03500 - 06000 | 053 000 000 000 | 00600 00700 01000 02000 > 04000 | - 00700 - 01000 - 02000 - 04000 | 024 034 000 000 | 00600 - 00700 - 01000 - 02000 - > 04000 | - 00700 - 01000 - 02000 - 04000 | 035 090 000 000 |
| NO OF MEASUR. MEAN [X10E-2] | +00205 | NO OF MEASUR. MEAN (X10E) | EASUR. [X10E-2] | +00203 | NO OF NEASUR | EASUR. [X10E-3] | +00206 | NO OF MEASUR MEAN (X10E) | MEASUR. [X10E-4] | +00201 | NO OF MEASUR | EASUR. [X10E-5] | +00200 |
| SIGNA [X10E-2] | +01649 | SIGHA | CX10E-23 | +02145 | SIGHA | CX10E-33 | +00478 | SIGNA | [X10E~4] | 100271 | SIGMA | [X10E-5] | +00378 |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PERIOD: 1970-1980

TABLE: 48

WANK PEAK 1780 M

PARAMETER- RELATIVE HUMIDITY 41-50%

| 0 - 70 | 0. 23 HI | | D2 = 0.45 MI | 14 54 V | | D3 = 0. | 0. 93 MI | | D4 = 2. | 2. 00 HI | | 55 | D5 = 4. 50 MI | |
|----------------------------|----------|-----------------------|---------------------------|-------------------------|-----------------------|----------------------------|----------|-----------------------|----------------------------|----------|-----------------------|-------------------------|----------------------------|-----------------------|
| RES. NR. | : 427 | | RES. NR. : | .: 428 | | RES. NR. : | . 429 | | RES. NR. : | . 430 | | RES. NR. : | 1: 431 | |
| PARTICL. CONC. [X10E-2] | - | FREGUENCY [1/10 X] | PARTICL. CONC [X10E-2] | TICL. CONC. EX10E-23 | FREGUENCY [1/10 2] | PARTICL. CONC. [X10E-3] | _ | FREGUENCY [1/10 %] | PARTICL. CONC. [X10E-4] | - | FREGUENCY [1/10 X] | PARTIC | PARTICL, CONC. [X10E-5] | FREGUENCY [1/10 %] |
| < 00200 | | 042 | 00100 > | | | < 00025 | | 021 | < 00025 | | 049 | < 00023 | | 000 |
| 00200 | 1 00400 | 991 | 8 6 | 1 00200 | 042 | 00023 | 00030 | 043 | 00025 | - 00050 | 160 | 80073 00073 00073 | 000000 | 021 |
| 00700 | 00800 - | | 0000 | 1 | | 0000 | - 00100 | 028 | 00026 | | 920 | 0000 | 00100 | 021 |
| 00800 | - 01000 | 063 | 00400 | - 00500 | | 00100 | - 00120 | | 00100 | - 00125 | 049 | 00100 | - 00125 | 028 |
| 01000 | - 01200 | 063 | 00200 | - 00900 | 0 028 | 00120 | - 00200 | 077 | 00125 | - 00150 | 040 | 00125 | - 00150 | 007 |
| 01200 | - 01400 | | 00900 | - 00750 | | 00200 | - 00250 | 160 | 00120 | - 00175 | 032 | 00150 | - 00175 | 021 |
| 01400 | - 01600 | | 00750 | - 01000 | _ | 00220 | - 00300 | 033 | 00175 | - 00200 | 920 | 00175 | - 00200 | 042 |
| 01600 | - 01800 | | 00000 | - 01300 | | 00300 | - 00320 | 033 | 00200 | - 00250 | 049 | 00200 | - 00220 | 860 |
| 01800 | - 02000 | 070 | 01200 | - 02000 | E90 0 | 00320 | - 00400 | 042 | 00220 | - 00300 | 032 | 00250 | - 00:300 | 103 |
| 00020 | - 02500 | 070 | 05000 | - 02200 | 050 | 00400 | - 60450 | 028 | 00:300 | - 00330 | 070 | 00300 | - 00320 | 070 |
| 02500 | - 03000 | | 02200 | - 03000 | | 00450 | - 00500 | 200 | 00320 | - 00400 | 042 | 00320 | - 00400 | 035 |
| 03000 | - 03200 | | 03000 | - 04000 | | 00200 | 00900 - | 920 | 00400 | - 00450 | 028 | 00400 | - 00450 | 056 |
| 03200 | - 04000 | 021 | 04000 | 02000 | • | 00900 | - 00700 | 920 | 00430 | - 00200 | 033 | 00450 | - 00200 | 049 |
| 0000 | 02000 | 043 | 00060 | - 02000 | 860 | 00200 | 00010 - | 133 | 00200 | - 00600 | 070 | 00200 | 00900 - | 077 |
| 02000 | 00090 - | | 00000 | - 09000 | 0 028 | 01000 | - 01300 | 077 | 00900 | - 00700 | 033 | 00900 | - 00700 | 690 |
| 00090 | - 09000 | | 03000 | - 12000 | | 01200 | - 02000 | 7.70 | 00200 | - 01000 | 160 | 00200 | - 01000 | 112 |
| 00000 | 10000 | 042 | 12000 | 12000 | - | 02000 | - 03200 | 690 | 01000 | - 02000 | 920 | 01000 | - 05000 | 691 |
| 2000 | 00000 | 0 0 0 0 0 | 12000 | 20000 | _ | 03200 | 00000 - | 3 | 05000 | - 04000 | 000 | 05000 | - 04000 | 004 |
| 00061 < | ŝ | <u>8</u> | > 20000 | 000 | 000 | 00090 < | 90 | 000 | > 04000 | 000 | 8 | > 04000 | 000 | 8 |
| NO OF M | MEASUR | +00142 | NO OF | HEASHR. | +00142 | 140 OF 1 | MEASUR | +00142 | NO OF MEASUR | WEASIJR. | +00142 | N 05 | MEASUR | +00142 |
| HEAN | [X10E-2] | +02120 | HEAN | [X10E-2] | 1 +03049 | MEAN | [X10E-3] | +0004 | MEAN | [X10E-4] | +00323 | MEAN | [X10E-5] | +00264 |
| SIGHN | [X10E-2] | +6120+ | STONA | CX10E-23 | 1 +03466 | STOM | [X10E-31 | +0000+ | STOWN | [X10E-43 | +00374 | SIGMA | (X10E-53 | +00431 |
| | - | | | - | ı | ŧ | | | | | | | | 1 |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PARAMETER= RELATIVE HUMIDITY 51-50%

TABLE: 49

WANK PEAK 1780 M

| THE TENT VELOTIVE | עברשו ז | 7 | TOTAL | 31-30% | | | | | | | | | |
|--------------------------|---------------------------------|------------------------|------------------------------|--|----------------------------|-------------|-----------------------|----------------------------|----------|-----------------------|----------------------------|------------|-----------------------|
| D1 = 0, 23 HI | | D2 = 0 | D2 = 0. 45 MI | | D3 = 0. 93 | ı E | | D4 = 2. | 2. 00 MI | | 55 = | - 4. 50 MI | |
| RES NR. : 432 | | RES. NR. : | k : 433 | | RES. NR. : | 434 | | RES. NR. | . 435 | , | RES. NR. | . 436 | |
| FARTICL CONC F | FREGUENCY [1/10 %] | PARTIC EX1 | PARTICL. CONC. 1 [X10E-2] | FREGUENCY [1/10 X] | PARTICL. CONC. CX10E-31 | _ | FREQUENCY [1/10 %] | PARTICL, CONC. EXIOE-41 | | FREGUENCY [1/10 %] | PARTICL. CONC. [X10E-5] | _ | FREGUENCY (1/10 %) |
| < 00200 00200 - 00400 | 032 | < 00100 - 00100 | 100 | 080 | < 00025 | 15 01000 | 021 | < 00025 0003E | 25 | 170 | < 00025 | | 000 |
| t | 6 50 | 00200 | 00300 | _ | | | 038 | 00020 | | 920 | 05000 | - 00076 | 00 02 02 |
| 00010 - 00000 | 114 | 00400 | 00400 | 049 069 | 000076 | 00100 | 076 | 00076 | - 00100 | 060 | 00076 | - 00100 | 032 027 |
| 1 | 0.33 | 00200 | 00900 - | 011 | 00120 - | 00200 | 690 | 00123 | - 00150 | 054 | 00125 | - 00150 | 027 |
| 01200 - 01400 | 0 0 0 0 0 0 0 | 00900 | - 00750 | 946 | - 00200 | 00230 | 065 | 00150 | - 00175 | 065 | 00120 | - 00175 | 038 |
| ı | 032 | 900 | 00010 | 080 | 00300 | | 400 | 0000 | - 00200 | 540 | 200 | - 00200 | 090 |
| 01800 - 02000 | 032 | 01200 | - 02000 | 075 | 00320 - | 00400 | 043 | 00220 | 00000 | 860 | 00250 | 00200 | 049 |
| i | 070 | 02000 | - 02500 | 080 | - 00400 | 00420 | 0.32 | 00:300 | - 00350 | 049 | 00000 | - 00320 | 087 |
| 02200 - 03000 | 086 086 | 02200 | 03000 | 040 | - 50450 | 00200 | 027 | 00320 | ~ 00400 | 010 | 00320 | - 00400 | 071 |
| . 1 | 9 | 04000 | 02000 | 0.40 8.10 | 00900 | 00200 | 6 6 | 00400 | 1 00450 | 200 | 00400 | 00450 | 076 |
| 04600 - 05000 | 043 | 02000 | - 07000 | 980 | - 00200 | 01000 | 076 | 00200 | 00900 - | 071 | 00200 | 00900 | |
| 1 | 028 | 00020 | - 09000 | | 01000 | 01200 | 120 | 00900 | - 00700 | 027 | 00900 | - 00700 | 071 |
| 00000 - 00000 | 043 | 00060 | - 12000 | | 01200 | 02000 | 120 | 00200 | - 01000 | 081 | 00200 | - 01000 | 153 |
| 1 | 38 | 15000 | 1 2000 | 5 00 00 00 00 00 00 00 00 00 00 00 00 00 | 02000 | 03200 | 100 | 01000 | 02000 | 920 | 01000 | - 02000 | 960 |
| 2000 | 000 | > 20000 | | | ç | | 88 | > 04000 | | 38 | > 04000 | | 000 |
| NO OF MEASUR. | +00184 | NO OF | NO OF MEASUR. | +00173 | NO OF PE | PEASUR. | +00183 | NO OF H | HEASUR. | +00183 | NO OF H | MEASUR. | +00183 |
| MERN [X10E-2] | +02161 | MEAN | (X10E-2) | +03003 | ME AN C | (X10E-31 | +00685 | MERNA | [X10E-4] | +00355 | MEAN | [X10E-5] | +00542 |
| SIGM (X10E-2) | +01771 | STOPIA | (X10E-23 | +03430 | Stome C | CX10E-31 | +60739 | Stam | (X10E-43 | +90366 | SIGMA | (X10E-51 | +00415 |
| | - | | - | ALL PROPERTY OF THE PERSON. | A | | | | | | | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

WANK PEAK 1780 M PARAMETER= RELATIVE HUMIDITY 61-70%

TABLE: 50

PERIOD: 1970-1980

| Di = 0.23 HI DI = 0.45 HI DI = 0.45 HI DI = 0.93 HI DI = 2 00 HI | | | | | | | | | | | | | | | |
|--|----------------|-----------------|-----------------------|--------------|----------|-----------|-------------|----------|-----------|----------------|-------------|-----------------------|----------------------------|----------|-----------------------|
| CL_CONC_FREGRENCY PARTICL_CONC_FREGRENCY PARTICL_CONC_FREGRENCY PARTICL_CONC_FREGRENCY TK10E=41 TK | u | 0. 23 MI | | D2 = 0. | 45 HI | | Ü | 1M E6 | | Œ | 1H 00 | | DS = 4, 50 ME | 50 MI | |
| CL. CONC. FREGUENCY (CL. CONC.) FREQUENCY (CL. CONC.) FREGUENCY (CL. CONC.) (L1/10 X1) (| RES. NR | | | RES. NR. | | | RES. NR | | | RES. NR. | | | RES. NR. | . 441 | |
| 0.200 0.41 < 0.0100 | FARTIC | L CONC 0E-23 | FREGUENCY [1/10 %] | PARTIC | | FREQUENCY | PARTIC | | FREQUENCY | PARTIC | _ | FREGUENCY [1/10 X] | PARTICL. CONC. [X10E-5] | _ | FREQUENCY [1/10 %] |
| - 00400 051 00100 - 00200 062 00025 - 00050 051 00025 - 00050 - 006400 067 0620 - 00400 052 000076 - 00100 045 000076 - 000076 - 0100u 046 0047 00400 - 00400 052 00100 - 00100 045 000076 - 00100 - 0100u 046 00400 - 00400 052 00100 - 00100 045 00100 - 00125 - 0100u 046 00400 - 00400 052 00100 - 00150 041 00102 - 00100 - 01400 056 00500 - 00400 034 00150 - 00200 045 00105 - 00105 - 01400 056 00500 - 00750 - 01000 034 00200 - 00200 045 00105 - 00105 - 01400 051 00000 - 01000 054 00200 - 00200 045 00105 - 00105 - 01400 051 01000 - 01000 054 00200 - 00200 045 00105 - 00105 - 01400 051 01000 - 02500 052 00300 - 00400 045 00105 - 00200 - 01400 051 01000 - 02500 052 00400 - 00400 015 00200 - 00200 - 01400 051 01000 - 02500 052 00400 - 00400 015 00200 - 00200 - 01400 041 07000 - 04000 042 00000 044 00400 - 00000 - 01000 - 00400 - 01400 044 07000 - 04000 042 00000 044 00000 - 01000 - 01000 - 01000 - 01400 044 07000 - 04000 072 011000 - 01000 045 00400 - 00400 - 01400 044 07000 - 07000 072 011000 - 01000 045 00000 - 01000 - 01400 044 07000 - 07000 072 011000 - 01000 045 00000 - 01000 - 01400 044 07000 - 07000 072 011000 - 01000 045 00000 - 01000 - 01400 044 07000 - 07000 072 011000 - 01000 072 01000 045 00000 - 01000 - 01400 044 07000 - 07000 072 011000 - 01000 072 01000 072 01000 - 01400 044 07000 - 07000 072 011000 - 01000 072 010000 072 010000 072 01000 072 01000 072 01000 072 010 | 8 | | | 8 | 8 | 960 | 8 | 025 | 040 | × 60 | 525 | 051 | < 00025 | 25 | 000 |
| - 00800 077 00300 - 00400 015 00000 045 00000 045 000000 045 000000 040000 0400 0400 0400 0400 0400 0400 0400 0400 0400 0400 04000 0400 | 00200 | | | 00100 | | 062 | 00025 | - 00020 | 150 | 00025 | - 000020 | 980 | 00025 | | 000 |
| - 01000 | | 1 | | 00700 | 00500 | 025 | 05000 | 92000 - | 043 | 000020 | - 00078 | 920 | 00030 | - 00076 | 013 |
| - 01200 054 00500 - 00450 - 00450 - 00150 - 00175 00175 - 00175 - 00175 - 00175 - 00175 - 00175 00175 00175 00175 | 00000 00000 | 0010 | | 00400 | 00200 | 025 | 00100 | 00120 | 061 | \$000 00100 | - 00100 | 990 | 000076 | - 00100 | 021 |
| - 01400 036 00600 - 00750 - 01400 035 00150 - 00175 - </td <td>01000</td> <td>- 01200</td> <td></td> <td>00200</td> <td>00900 -</td> <td>936</td> <td>00150</td> <td>- 00200</td> <td>040</td> <td>00125</td> <td>- 00150</td> <td>056</td> <td>00125</td> <td>00130</td> <td>0</td> | 01000 | - 01200 | | 00200 | 00900 - | 936 | 00150 | - 00200 | 040 | 00125 | - 00150 | 056 | 00125 | 00130 | 0 |
| - 01600 0.30 00756 - 01000 0.34 00250 - 00300 0.045 0.0200 - 00200 | 01200 | - 0140 | | 00900 | - 00750 | 031 | 00200 | - 00250 | 025 | 00120 | - 00175 | 030 | 00120 | - 00175 | 026 |
| - 01800 061 01800 - 01500 - 01500 098 00300 - 00350 066 00200 - 00250 - 00250 - 02000 - 02000 - 02000 - 02000 - 02000 - 02000 - 02000 - 02000 - 02000 - 02000 - 02000 - 02000 - 02000 - 02000 061 02500 - 02000 061 02500 - 02000 061 02500 - 02000 061 02500 - 02000 061 02500 - 02000 061 02500 - 02000 061 02500 - 02000 061 02000 - 02000 062 00200 - 02000 061 02000 - 02000 062 00200 - 02000 061 02000 - 02000 062 00200 - 02000 062 00200 - 02000 - 02000 - 02000 - 02000 - 02000 - 02000 - 02000 - 02000 - 02000 - 02000 062 00200 - 02000 - | 01400 | - 0160 | | 00756 | - 01000 | 980 | 00250 | - 00300 | 043 | 00175 | - 00200 | 051 | 00175 | - 00200 | 015 |
| - 02000 036 01500 - 02000 062 00350 - 00400 015 00250 - 00300 - 03000 061 02500 - 02300 041 00450 - 00450 040 00350 - 00350 - 03000 061 02500 - 03000 041 00450 - 00500 010 00350 - 00400 - 03500 061 02500 - 03000 041 00450 - 00500 010 00350 - 00400 - 03500 061 03000 - 04000 062 00500 - 00500 010 00350 - 00400 - 03000 061 03000 - 03000 052 00600 - 01500 045 00450 - 00500 - 05000 061 05000 - 05000 052 00600 - 01500 045 00450 - 00500 - 05000 061 07000 - 09000 072 01000 - 01500 045 00700 - 01000 - 05000 067 09000 - 12000 067 01500 - 02000 056 01000 - 02000 - 15000 063 12000 - 12000 065 0350 096 01000 - 02000 - 15000 065 12000 - 20000 067 01500 - 02000 000 056 01000 - 04000 - 15000 065 12000 - 12000 006 057 01000 - 02000 000 056 01000 - 04000 - 15000 065 12000 - 120000 006 057 01000 - 02000 000 000 000 000 000 000 000 | 03910 | 5310 | | 01000 | - 01200 | 038 | 00300 | - 00320 | 940 | 00200 | - 00250 | 180 | 00200 | - 00220 | 690 |
| - 02500 092 C2000 - 02500 052 00400 - 00450 040 00300 - 00350 - 03000 061 02500 - 03000 041 00450 - 00500 010 00350 - 00400 - 03000 061 02500 - 04000 062 - 00500 076 00400 - 00400 - 04000 064 0700 - 04000 052 06600 - 00700 0450 - 00400 - 04000 064 07000 - 07000 135 00700 - 00500 - 00500 - 05000 064 07000 - 07000 135 00700 - 00700 - 00700 - 05000 067 07000 072 01500 - 02000 056 01000 - 04000 - 15000 065 15000 - 12000 056 056 01000 - 04000 - 15000 065 15000 - 12000 056 056 056 0100 056 0100 | 01800 | - 0200 | | 01200 | - 02000 | 062 | 00320 | - 00400 | 015 | 00220 | - 00300 | 920 | 00220 | - 00300 | 058 |
| - 03000 061 02500 - 03000 010 00350 - 00400 - 03500 - 04000 - 04000 - 00400 - 00400 - 00400 - 00400 - 00400 - 00400 - 00400 - 00400 - 00400 - 00400 - 00400 - 00400 - 00400 - 00400 - 00400 - 00400 - 00400 - 00400 - 00500 - 00500 - 00500 - 00500 - 00500 - 00500 - 00500 - 00400 - 00400 - 00400 - 00400 - 00400 - 00400 - 00400 - 01000 - 01000 - 01000 - 01000 - 01000 - 01000 - 01000 - 01000 </td <td>02000</td> <td>- 02500</td> <td></td> <td>00023</td> <td>- 02500</td> <td>052</td> <td>00400</td> <td>- 00450</td> <td>040</td> <td>00300</td> <td>~ 00320</td> <td>040</td> <td>00300</td> <td>- 00320</td> <td>680</td> | 02000 | - 02500 | | 00023 | - 02500 | 052 | 00400 | - 00450 | 040 | 00300 | ~ 00320 | 040 | 00300 | - 00320 | 680 |
| - 04000 061 03000 - 04000 062 00500 - 00600 076 00400 - 004500 - 0 | 02200 | 3000 | | 05200 | - 03000 | 041 | 00450 | - 00200 | 010 | 00320 | ~ 00400 | 040 | 00320 | - 00400 | 074 |
| - 05000 041 07000 - 05000 052 00500 - 01500 127 00500 - 00500 - 00500 - 05000 045 0 - 00500 - 05000 045 0 - 00500 - 00500 - 05000 054 00500 - 00500 - 00500 - 01000 - | 9000 | 0320 | | 03000 | 04000 | 062 | 00200 | 00900 - | 920 | 00400 | - 00420 | 025 | 00400 | - 00450 | 074 |
| - 0.0000 041 07000 - 0.0000 072 01000 - 0.1500 107 00500 - 0.0000 | 300 | | | 04000 | 00000 | 052 | 00900 | - 00200 | | 00450 | - 00500 | 030 | 00420 | - 00200 | 052 |
| - 06000 041 07000 - 09000 072 01000 - 01500 107 00600 - 00700 - 01000 | 3 | 1 | | 00000 | 00020 ~ | g | 00200 | - 01000 | | 00200 | - 00900 | 040 | 00300 | 00900 - | 116 |
| - 03000 067 09000 - 12000 057 01500 - 02000 056 00700 - 01000 - 01000 - 15000 036 12000 - 15000 005 056 01000 - 02000 056 01000 - 02000 050 056 01000 - 02000 050 050 005 0500 - 02000 050 050 005 05000 - 02000 0500 05 | 00000 | X0090 - | | 00020 | _ | 072 | 01000 | - 01500 | 101 | 00900 | ~ 00700 | 990 | 00900 | - 00700 | 058 |
| - 10000 036 12000 - 15000 036 02000 - 03500 096 01000 - 02000 0500 005 15000 - 20000 005 005 005 005 000 000 0 000 0 000 0 000 0 000 0 000 0 | 00090 | 0080 | | 00060 | - 12000 | 037 | 01500 | - 02000 | 920 | 00200 | - 01000 | 990 | 00700 | - 01000 | 148 |
| - 13000 005 15000 - 20000 005 03500 - 06000 000 02000 - 04000 5000 000 > 20000 000 > 04000 HEASUR +00194 NO OF MEASUR +00192 NO OF MEASUR +00196 NO OF MEASUR. [X10E-2] +02597 NEAN [X10E-2] +03572 MEAN [X10E-3] +00739 MEAN [X10E-4] | 00000 | - | | 12000 | 12000 | 980 | 05000 | - 03200 | 960 | 00010 | - 02000 | 920 | 00010 | - 02000 | 159 |
| MEASUR +00194 NO OF MEASUR. +00192 NO OF MEASUR. +00196 NO OF MEASUR. 100739 NEAN [X10E-4] | 00001 | | | 15000 | | 003 | 03200 | - | 000 | 02000 | - | 000 | 02000 | - 04000 | 000 |
| MEASUR. +00194 NO OF MEASUR. +00192 NO OF MEASUR. +00196 NO OF MEASUR. EX10E-21 +02597 MEAN [X10E-21 +03572 MEAN (X10E-31 +00739 MEAN [X10E-4] | CI ^ | 8 | 000 | \$ ^ _ | 000 | 000 | 8 ^ _ | 000 | 000 | ¥0 ^ | 000 | 000 | > 04000 | 90 | 000 |
| [X10E-2] +02597 MEAN [X10E-2] +03572 MEAN [X[0E-3] +00739 MEAN [X10E-4] | | WEASUR. | +00194 | NO OF | EASUR. | +00192 | 150 OF | HEASUR. | +00196 | NO OF ! | HEASUR. | +00196 | NO OF MEASUR | HEASUR. | €.8100÷ |
| | HE PR | [X10E-2] | | MEAN | [X10E-23 | +03572 | MEAN | (X10E-3) | 4E200+ | MEAN | [X10E-4] | +00322 | MEAN | (X10E-51 | +00289 |
| 810MA [X10E-2] +02284 SIGMA [X10E-2] +03629 SIGMA [X10E-3] +00746 SIGMA [X10E-4] +003 | SIGNA | [X10E-2] | | SIGMA | [X10E-2] | +03629 | STOMA | [X10E-3] | +00746 | | (x 10E-4] | +0036.1 | STOMA | (X10E~51 | +00397 |

TO THE STATE OF STATE

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 51

WANK PEAK 1780 M

| Di = 0.23 HI DI = 0.45 HI DI = 0.45 HI DI = 0.93 HI DI = 0.93 HI DI = 0.20 HI DI = | | | | | | | | *************************************** | | | | | | | |
|--|-------------------|----------|---------------------|-----------------|----------|-----------------------|-----------------|---|---------------------|-----------------|----------|---------------------|---------------------------------|--------------------|-----------------------|
| FREDMENCY PARTICL_CONC. FREQUENCY FREQ | 10 | 23 HI | | D2 = 0. | 45 Hī | | * | | | 8 | 1M 00 | | | 30 MI | |
| FREQUENCY PARTICL. CONC. FREQUENCY FREQUENCY FREQUENCY FARTICL. CONC. FREQUENCY FARTICL. CONC. | RES. NR. | | | RES NR | | | RES. NR. | | | RES. NR. | | | RES. MR. | | |
| 0.00 0.00 C 000100 0.00 C 00023 C 00023 C 00023 C 00020 C 00023 C 0002 | FARTICL. CX10E | | REDUENCY 1/10 X1 | PARTICL CX16 | | FREGUENCY | PARTICL EXIC | | REGUENCY 1/10 %3 | PARTICI EXIC | | REGUENCY 1/10 X1 | PARTIC | | FREQUENCY [1/10 %] |
| 0.00000 0.0000 | C 0020 | | 040 | 100 > 3 | | 051 | 300 V | | 960 |) | | 0.34 | 200 > 300 | | 003 |
| 0 0.0500 0.640 0.025 0.0076 - 00100 0.51 0.0076 - 00100 0.94 0.0076 - 00100 0.91 0.0076 - 00100 0.94 0.0076 - 00100 0.0010 | | | 080 | 00200 | 00000 | 077 | 000023 | | 920 | 00020 | | 10,4 | 00000 | - 000076 | 070 |
| 0 - 01200 085 00500 - 00400 035 00150 - 00200 047 00125 - 00179 054 00125 - 00179 - 00179 054 00125 - 00179 - 00179 - 00179 054 00125 - 00179 | | | 050 | 00300 | | 025 | 00076 | | 051 | 00076 | - 00100 | 094 | 00076 | | 010 |
| 0.1800 0.45 0.0250 <td>01000</td> <td>- 01200</td> <td>083</td> <td>00200</td> <td></td> <td>036</td> <td>00120</td> <td>_</td> <td>067</td> <td>00125</td> <td></td> <td>690</td> <td>00125</td> <td>_</td> <td>055</td> | 01000 | - 01200 | 083 | 00200 | | 036 | 00120 | _ | 067 | 00125 | | 690 | 00125 | _ | 055 |
| 0 - 01800 020 01000 - 01500 - 00250 <td>00110</td> <td>01600</td> <td>200</td> <td>00220</td> <td>00000</td> <td>900</td> <td>00220</td> <td>00300 -</td> <td>700</td> <td>00120</td> <td>- 00200</td> <td>0.00</td> <td>00100</td> <td>- 00200</td> <td>050</td> | 00110 | 01600 | 200 | 00220 | 00000 | 900 | 00220 | 00300 - | 700 | 00120 | - 00200 | 0.00 | 00100 | - 00200 | 050 |
| 0 - 02500 030 01500 - 02000 108 00350 - 00400 035 00250 - 00350 029 02550 - 00350 029 02500 - 00350 029 02500 - 00350 029 02500 - 00350 029 02500 - 00350 029 02500 - 00400 039 00350 - 00400 039 00350 - 00400 039 00350 - 00400 039 00350 - 00400 039 00350 - 00400 039 00400 - 00400 039 00400 - 00400 039 00400 - 00400 039 00400 - 00400 039 00400 - 00400 039 00400 - 00400 039 00400 - 00400 004000 - 00400 0040 | 00910 | 00810 - | 020 | 01000 | - 01500 | 062 | 0000 | - 00350 | 140 | 00200 | - 00250 | 180 | 00200 | - 00250 | 020 |
| D - 02500 075 02000 - 02500 031 00400 - 00500 0250 00350 - 00400 00350 - 00400 00350 - 00400 00350 - 00400 00350 - 00400 00350 - 00400 00350 - 00400 00350 - 00400 00350 - 00400 00350 - 00400 00350 - 00400 00400 - 00400 00350 - 00400 00400 - 00400 00350 - 00400 00400 - 00400 00350 - 00400 00400 - 00 | 00810 | - 02000 | 030 | 01200 | - 02000 | 108 | 00320 | _ | 960 | 00220 | - 00300 | 029 | 00220 | - 00300 | 055 |
| 0 = 03000 0.60 02500 - 03000 0.41 0.0450 - 00500 0.20 0.0350 - 00400 0.39 0.0350 - 00400 0.0350 - 00400 0.0350 - 00400 0.0350 - 00400 0.0350 - 00400 0.0350 - 00400 0.04000 - 00400 0.04000 - 00400 0.04000 - 00400 0.04000 - 00400 0.04000 - 00400 0.04000 - 00400 0.04000 - 00400 0.04000 - 00400 0.04000 - 00400 0.04000 - 00400 0.04000 - 00400 0.04000 - 00400 0.04000 - 00400 0.04000 - 00400 0.04000 - 00400 0.0400 | 02000 - | - 02500 | 075 | 02000 | | 160 | 00400 | - | 025 | 00300 | - 00320 | 610 | 00300 | - 00:350 | 060 |
| - 04000 045 0440 046 0460 046 00450 049 00450 049 00450 049 00450 049 00450 049 00450 049 00450 049 00450 049 00450 049 00450 0 04000 045 04000 045 04000 045 04000 045 04000 045 04000 045 04000 045 04000 045 04000 045 04000 045 04000 045 04000 045 04000 045 04000 045 04000 045 04000 045 04000 049 00450 049 00450 049 00450 049 00450 049 00450 049 00450 049 00450 049 00450 049 00450 049 049 049 049 049 049 049 049 049 04 | 02500 | 03000 | 090 | 02200 | 03000 | 041 | 00450 | - 00500 | 020 | 00320 | - 00400 | 680 | 00320 | - 00400 | 080 |
| 0 - 05000 045 07000 - 07000 046 01000 - 01000 092 00500 - 00500 049 00500 - 00500 0 00500 - 00500 | 00000 | 04000 | 0 0 0 0 | 03000 | 000000 | 0 0 0 0 0 | 00200 | - 006000 | 046 | 00400 | - 00450 | 049 | 00400 | - 00450 - 00500 | 9 6 |
| 0 - 06000 055 07000 - 12000 046 01000 - 01500 06700 - 01000 059 00500 - 0000 07000 - 01000 059 00700 - 01000 059 00700 - 01000 059 00700 - 01000 059 00700 - 01000 059 00700 - 01000 059 00700 - 01000 059 00700 - 01000 059 00700 - 01000 059 00700 - 01000 059 00700 - 01000 059 00700 - 01000 059 00700 - 01000 059 00700 - 01000 007000 - 01000 00700 - 01000 00700 - 01000 00700 - 01000 00700 - 01000 00700 - 01000 00700 - 01000 00700 - 01000 00700 - 01000 00700 - 01000 00700 - 01000 00700 - 01000 00700 - 01000 00700 - 01000 00700 - 01000 <td>04000</td> <td>- 05000</td> <td>045</td> <td>02000</td> <td></td> <td>087</td> <td>00200</td> <td>00010 -</td> <td>092</td> <td>00200</td> <td>00900 -</td> <td>049</td> <td>00200</td> <td>- 00900</td> <td>065</td> | 04000 | - 05000 | 045 | 02000 | | 087 | 00200 | 00010 - | 092 | 00200 | 00900 - | 049 | 00200 | - 00900 | 065 |
| D - 08000 025 69000 - 12000 031 01500 - 02000 0300 - 03500 06700 - 01000 059 00700 - 01000 059 00700 - 01000 0500 - 01000 0700 - 01000 | 02000 | 00090 - | 053 | 0000 | 00060 - | 046 | 01000 | _ | 097 | 00900 | _ | 029 | 00900 | - 00700 | 075 |
| 0 - 10000 055 12000 - 15000 046 02000 - 03500 046 01000 - 02000 034 01000 050 050 050 050 050 050 050 050 0 | 00090 | 00080 - | 025 | 00060 | - 12000 | 031 | 01200 | - 02000 | 190 | 00200 | 00010 - | 029 | 00200 | 00010 - | 101 |
| FEASUR | 00080 | 10000 | n 6 | 12000 | 15000 | | 02000 | - 03200 | 046 | 01000 | - 02000 | 034 | 0000 | - 02000 | 911 |
| F MEASUR. +00200 NO OF MEASUR. +00193 NO OF MEASUR. +00194 NO OF MEASUR. +00201 NO OF MEAN [X10E-2] +02449 MEAN [X10E-2] +02978 MEAN [X10E-3] +00606 MEAN [X10E-4] +00293 MEAN MEAN [X10E-4] +00319 SIGMA | 1500 | • | 88 | 200 | | - | 2000 | | 38 | > 04(| | 38 | 200 200 400 400 400 | _ | 8 |
| [XIOE-2] +02449 MEAN [XIOE-2] +02978 MEAN [XIOE-3] +00606 MEAN [XIOE-4] +00293 MEAN MEAN | NO OF HE | EASUR. | +00200 | NO OF P | EASUR. | +00193 | NO OF | EASUR. | +6100+ | | HEASIJR. | +00.201 | 占 | HEASUR. | +00198 |
| [XIOE-2] +02243 SIGHA [XIOE-2] +03637 SIGMA [XIOE-3] +00656 SIGNA [XIOE-4] +00319 SIGNA | | [X10E-2] | +02449 | MEAN | [X10E-2] | +02978 | MEAN | (X10E-3) | +00900 | MEAN | [X10E-4] | +00293 | MEAN | (X10E-51 | +00216 |
| | | [X10E-2] | +02243 | STONA | [X10E-2] | +03637 | SIGMA | [X10E+3] | +00656 | SIGMA | [X10E-4] | +00319 | SIOMA | (X10E-5) | +00403 |

TABLE: 52

WANK PEAK 1780 M

| = 0 23 MI | | 00 = 00 | . 45 MI | | 03 = 0 | . 93 MI | | 04 = 2 | IH. 00 . | | 8 | 1. 50 MI | |
|-------------------|---------------------|---|---|--|--|----------------|--|---|----------------------------------|---|--|---|---|
| . 447 | | RES. NR. | 448 | | RES. NR. | 449 | | RES. NR | 450 | | RES. N | t : 451 | |
| PARTICL. CONC. FF | REQUENCY 1/10 %3 | PARTIC | _ | REQUENCY | PARTICI [X1 | | REQUENCY | PARTIC [X1 | | REGUENCY 1/10 X1 | PARTIC | _ | FREGUENCY [1/10 x] |
| < 00200 | 076 | 8 | | 8 | 8 | | 025 | 8 > | 025 | 102 | 8 | | 000 |
| - 00400 | 920 | 00100 | ~ 00200 | | 00025 | - 00020 | 080 | 00025 | - 000020 | 145 | 00025 | - 000020 | 910 |
| 20900 | 890 | 00200 | 0000 | | 00050 | - 00076 | 090 | 00050 | - 00076 | 901 | 00030 | - 00076 | 012 |
| - 01000 | 080 | 00400 | 00200 | | 00100 | - 00130 | 116 | 00100 | - 00125 | 980 | 20100 | - 00125 | 0 4 1 |
| - 01200 | 080 | 00200 | 00900 | 048 | 00130 | - 00200 | 108 | 00125 | - 00150 | 062 | 00125 | - 00150 | 032 |
| - 01400 | 028 | 00900 | - 00750 | • | 00200 | - 00250 | 052 | 05100 | - 00175 | 027 | 00120 | - 00175 | 028 |
| - 01600 | 048 | 00750 | - 01000 | | 00220 | - 00300 | 960 | 00175 | - 00200 | 047 | 00175 | - 00200 | 049 |
| | 052 | 0001 | | | 00300 | 00320 | 048 | 00200 | - 00250 | 031 | 00200 | - 00250 | 113 |
| | 040 | 00510 | | | 00320 | - 00400 | 020 | 00220 | - 00300 | 032 | 00220 | - 00300 | 060 |
| - 02500 | 072 | 00020 | - 02500 | 048 | 00400 | - 00450 | 032 | 00300 | - 00320 | 043 | 00300 | - 00320 | 094 |
| 03000 | 260 | 02200 | 03000 | | 00450 | - 00200 | 040 | 00320 | - 00400 | 011 | 00320 | - 00400 | 053 |
| 03300 | 9 6 | 00000 | 1 04000 | | 00200 | 00900 - | 052 | 00400 | - 00450 | 047 | 00400 | - 00450 | 087 |
| | 200 | 04000 | 00000 | | 00900 | 00/00 | 910 | 00100 | 00000 | 610 | 00100 | 00000 | 140 |
| | 670 | 0000 | 00000 | | 90/00 | 00010 - | 080 | 00000 | - 00000 | /70 | 2000 | 00900 - | 660 |
| 00090 - | 936 | 00000 | - 09000 | | 00010 | ~ 01500 | 072 | 00900 | - 00700 | 027 | 00900 | - 00200 | 045 |
| 00060 - | 028 | 00060 | - 12000 | | 00510 | - 02000 | 090 | 00200 | - 01000 | 027 | 00200 | - 01000 | 060 |
| - 10000 | 020 | 12000 | - 15000 | | 02000 | - 03200 | 024 | 01000 | - 02000 | 043 | 01000 | - 05000 | 078 |
| | 8 | 15000 | | | 03200 | 00090 - | 000 | 00070 | - 04000 | 000 | 05000 | - 04000 | 800 |
| > 15000 | 000 0 | > 20 | 000 | 000 | 90 < | 000 | 000 | 5 0 ^ | 000 | 000 | ٥ ^ | 0001 | 000 |
| NO OF NEASUR. | 100247 | NO OF | MEASUR. | +00248 | NO OF | MEASUR. | +00250 | NO 0F | MEASUR. | +00254 | NO 05 | MEASUR. | +00243 |
| [X10E-2] | £6610+ | HES | CX10E-23 | +02559 | MEAN | [K10E-3] | +00488 | FEAN | CX10E-43 | +60234 | HEAN | (X10E-5) | +00457 |
| (X10E-23 | +01834 | SIGHA | [X10E-2] | 09160+ | STUPPA | £X10E-31 | +00592 | STUMP | [X10E-9] | £1500+ | STORIO | 12-301XJ | +00382 |
| | | 7 7 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 | FREQUENCY [1/10 X] [1/10 X] 076 600 076 500 076 900 076 900 078 900 078 900 078 900 078 900 079 900 070 900 071 900 072 900 072 900 074 900 074 900 074 900 074 900 077 900 078 900 900 900 900 900 900 900 90 | RES. NR. : 448 FREQUENCY FARTICL. CONC. LI/10 X] LX10E-2] LX10E-2 | DE = 0.45 MI FREGUENCY FREGUENCY FARTICL_CONC. FREGUENCY FARTICL_CONC. FREGUENCY FARTICL_CONC. FREGUENCY CA 00100 CA 001000 CA 001000 | RES. NR. : 448 | The column The | The color The | FRES. NR. : 448 RES. NR. : 449 | The color The | The color of the | The color The | The color The |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

WANK PEAK 1780 M TABLE: 53

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 54

ZUGSPITZE PEAK 3000 M

| O ME | 901 | CONC. FREQUENCY -51 [1/10 %] | 5 00050 016 | 00076 | 62100 | 00175 041 | 00200 | | | 00300 | | 00400 | 00200 | 00/20 108 | 02000 | | MEASUR. +00120 | CX10E-51 +00335 | CX10E-53 +00257 |
|---------------|------------|---------------------------------|------------------------|---------------------------------------|---------|-----------|-------------------------|---------|---------|--------------|---------|-----------|---------|------------|---------|----------|----------------|-----------------|-----------------|
| DS = 4. 50 MI | RES. NR. : | PARTICL. CONC. | < 00025 00025 - | | 00100 | 86.00 | 20175 | | 00250 - | 00275 | 00325 | 00320 | 00400 | 00200 | 01000 | > 02000 | NO GF NE | MEAN | J. WHOIS |
| | | FREQUENCY [1/10 X] | 107 | | | | 057 | | | 024 | | 033 | | 679 | | 000 | +00121 | +00168 | +00306 |
| 2. 00 MI | Æ.: 105 | PARTICL. CONC. EXIOE-41 | < 00015 015 - 00030 | 1 1 | ı | 1 1 | 5 - 00120 | ı | ı | 00300 | | 00600 - 0 | 1 | 02200 | 1 | 00001 < | NO OF MEASUR. | [X10E-4] | A [X10E-4] |
| 2 | RES. NR. | | 000 000 | 00030 | 00000 | 06090 | 00105 | 00120 | 00200 | 00250 | 88 | 00900 | 00600 | 00520 | 02000 | <u>-</u> | <u>\$</u> | MEAN | SIGMA |
| | | FREQUENCY | 065 | - | | - | 081 | | | 040 | | 016 | | P 8 | | 8 | +00123 | +00190 | +00320 |
| D3 = 0. 93 HI | .: 104 | PARTICL. CONC. [X10E-3] | 015 - 00030 | - 00045 | 67000 - | - 00009 | - 00120 | - 00500 | - 00250 | - 00300 | 00900 | - 00400 | - 01500 | 02000 - | | 000 | NO OF MEASUR. | [X10E-3] | (X10E-3) |
| 03 = 0 | RES NR. : | PARTIC CX1 | < 00015 00015 - | 00030 | 00000 | 0000 | 00100 | 00130 | 00200 | 80230 | 38 | 00900 | 00600 | 02500 | 02000 | 00001 < | ₹ 6 | MEAN | SIGMA |
| | | FREQUENCY [1/10 X] | 057 073 | 901 | 500 | | 049 049 | | | 0 4 0 | | 040 | 032 | 910 | 800 | 000 | +00122 | +002%0 | +00657 |
| 45 HI | 103 | _ | | - 00043 | | 1 00000 | 00120 | | - 00250 | 00300 | 0090 | - 00900 | - 01500 | 002000 | - 10000 | 8 | EASUR. | [X10E-2] | [X10E-2] |
| D2 = 0.45 MI | RES. NR. : | PARTICL CONC. [X10E-2] | < 00015 00015 - | 000000 | 2000 | 0000 | 80108 20108 | 00130 | 00200 | 00230 | 860 | 00900 | 00600 | 02500 | 02000 | > 10000 | NO OF MEASUR. | MEAN | STONA |
| | | FREGUENCY | 057 | 060 | | 08.0 | 910 | 049 | 073 | 660 | 032 | 037 | 032 | 024 | 900 | 6 | +00122 | +00628 | +1600+ |
| = 0.23 HI | 102 | | 250 - 00100 | - 00150 | | 00320 | 00400 | 00900 - | - 00800 | 01000 | - 01500 | - 02000 | 00000 | 00040 | | 8 | EASUR | [X10E-2] | CX10E-23 |
| - - | RES MR | PARTICL. CONC (X10E-2) | - 05000 05000 > | 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 | | 00300 | 00000 00000 00000 | 00200 | 00900 | 0000 | 01230 | 000 | 02000 | 0400 | 00000 | > 12000 | NO OF MEASUR | HEAN | SIGHA |

PARAMETER RELATIVE HUMIDITY 41-50%

TABLE: 55

ZUGSPITZE PEAK 3000 M

| 0 . | 0. 23 MI | | D2 = 0 | - 0. 45 HI | | D3 = 0. S | 0. 93 MI | | D4 = 2 | 2. 00 MI | | DS = 4. 50 MI | 50 HI | |
|---|---|--------------------------|---|--|--------------------------|---|--|--------------------------|--|--|--------------------------|---|---|--------------------------|
| RES. NR. | . 427 | | RES. NR. : | r : 453 | | RES. NR. : | | | RES. NR. : | 455 | | RES. NR. : | . 456 | |
| PARTICL. CONC (X10E-21 | | FREGUENCY [1/10 X] | PARTIC CX1 | PARTICL. CONC. F [X10E-2] [| FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-3] | _ | FREGUENCY [1/10 X] | PARTIC [X1 | PARTICL. CONC. FI | FREGUENCY | PARTICL. CONC. [X10E-5] | | FREGUENCY [1/10 X] |
| 00030 00030 - 00100 - 00130 | - 00100 - 00100 - 00150 | 033 | C 00015 00015 - 00030 - 00045 - | 015 00030 00045 00045 | 010 083 050 050 | 00015 - 00015 - 00030 - 00045 - | 15 00030 00045 00045 | 033 033 152 | C 00015 00015 - 00030 - 00045 - | 013 - 00030 - 00043 - 00060 | 066 083 133 | <pre></pre> | 255 - 00050 - 00076 - 00100 | 017 017 035 |
| 00250 00350 00350 00400 | 00300 00300 00400 00500 00500 | | 00073 00103 00120 | | | 00073 00003 00103 00120 | 00030 00120 00130 00230 | 050 | 000073 00120 00130 | - 00090 - 00103 - 00130 - 00130 | 033 016 033 030 | 00125 00175 00175 00200 | - 00150 - 00173 - 00200 - 00225 - 00255 | |
| 00600 01250 01250 | - 01000 - 01250 - 01350 - 01300 | 083 050 116 016 | 00200 00230 00300 00400 | - 00230 - 00400 - 00600 | 016 016 063 050 | 00200 00230 00300 00400 | 00250 00300 00400 00600 | 016 016 030 030 | 00200 00230 00300 00400 | 00300 | 033 010 050 050 | 00250 00275 00300 00325 00350 | - 00275 - 00300 - 00325 - 00350 | 052 035 017 035 |
| 02000 - 03000 - 04000 - 06000 - > 12000 | - 03000 - 04000 - 06000 - 12000 | 94000 | 00900 01500 02500 05000 0 10000 | - 01500 - 02500 - 05000 - 10000 | 033 000 000 | 00900 - 01500 - 02500 - 05000 - 05000 - 05000 - 05000 - 05000 - 05000 - 05000 - 05000 - 05000 - 0500000 - 050000 - 050000 - 050000 - 050000 - 050000 - 050000 - 0500000 - 050000 - 050000 - 050000 - 050000 - 050000 - 050000 - 0500000 - 050000 - 050000 - 050000 - 050000 - 050000 - 050000 - 0500000 - 050000 - 050000 - 050000 - 050000 - 050000 - 050000 - 0500000 - 050000 - 050000 - 050000 - 050000 - 050000 - 050000 - 05000000 - 050000 - 050000 - 050000 - 050000 - 050000 - 050000 - 0500000 - 050000 - 050000 - 050000 - 050000 - 050000 - 050000 - 0500000 - 050000 - 050000 - 050000 - 050000 - 050000 - 050000 - 0500000 - 050000 - 050000 - 050000 - 050000 - 050000 - 050000 - 0500000 - 050000 - 050000 - 050000 - 050000 - 050000 - 050000 - 0500000 - 050000 - 050000 - 050000 - 050000 - 050000 - 050000 - 0500000 - 050000 - 050000 - 050000 - 050000 - 050000 - 050000 - 0500000 - 050000 - 050000 - 050000 - 050000 - 050000 - 050000 - 0500000 - 050000 - 050000 - 050000 - 050000 - 050000 - 050000 - 0500000 - 050000 - 050000 - 050000 - 050000 - 050000 - 050000 - 0500000 - 050000 - 050000 - 050000 - 050000 - 050000 - 050000 - 05000000 - 0500000 - 0500000 - 0500000 - 0500000 - 0500000 - 0500000000 | - 01500 - 02500 - 05000 - 10000 | 900 900 900 900 | 00900 - 01500 - 02500 - 05000 - 05000 - 05000 - 05000 - 05000 - 05000 - 05000 - 05000 - 05000 - 05000 - 0500000 - 050000 - 050000 - 050000 - 050000 - 050000 - 050000 - 0500000 - 050000 - 050000 - 050000 - 050000 - 050000 - 050000 - 0500000 - 050000 - 050000 - 050000 - 050000 - 050000 - 050000 - 0500000 - 050000 - 050000 - 050000 - 050000 - 050000 - 050000 - 0500000 - 050000 - 050000 - 050000 - 050000 - 050000 - 050000 - 0500000 - 050000 - 050000 - 050000 - 050000 - 050000 - 050000 - 0500000 - 050000 - 050000 - 050000 - 050000 - 050000 - 050000 - 0500000 - 050000 - 050000 - 050000 - 050000 - 050000 - 050000 - 0500000 - 050000 - 050000 - 050000 - 050000 - 050000 - 050000 - 0500000 - 0500000 - 0500000 - 0500000 - 0500000 - 0500000 - 0500000000 | - 01500 - 02500 - 05000 - 10000 | 033 000 000 000 | 00400 - 00500 - 00750 - 01000 - > 02000 | - 00500 - 00750 - 01000 - 02000 | 140 105 052 017 |
| NO OF H | MEASUR. [X10E-2] [X10E-2] | +00060 | NO OF HEAN SIGNA | MEASUR. [X10E-2] [X10E-2] | +00060 | ND OF HE | HEASUR. (X10E-3) (X10E-3) | +00059 | NO OF MEAN SIGNA | MEASUR [X10E-4] [X10E-4] | +00060 | NO OF H MEAN SIGNA | MEASUR. [X10E-5] [X10E-5] | +00057 |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PARAMETER- RELATIVE HUMIDITY 51-50%

TABLE: 56

ZUGSPITZE PEAK 3000 M

| 6 | ■ 0. 23 MI | | 05 = 0 | = 0.45 MI | | 03 = 0 | D3 = 0. 93 MI | | D4 = 2 | D4 = 2.00 MI | | 8 | DS = 4. 50 HI | |
|----------------|------------|---|--------------|----------------------------|-----------------------|----------|------------------------------|-----------------------|---------------|-----------------------|-----------------------|----------|------------------------|-----------------------|
| RES. NR. : | . 457 | | RES. NR. : | . : 458 | | RES. NR. | t : 459 | | RES. NR. | .: 460 | | RES. NR. | l : 461 | |
| PARTICL. CONC. | | FREQUENCY [1/10 X] | PARTIC | PARTICL. CONC. [X10E-2] | FREGUENCY [1/10 %] | PART IC | PARTICL. CONC. F [X10E-3] | FREGUENCY (1/10 X1 | PARTIC [X1 | PARTICL. CONC. FI | FREGUENCY [1/10 X] | PART 1C | PARTICL, CONC. P | FREGUENCY [1/10 %] |
| 05000 > | 9 | 033 | E1000 > | ě. | 033 | 11000 | ŗ | 2 | 1000 | 1 | 9 | 8 | | |
| 00020 | - 00100 | 933 | 00013 | | | 000 | - 00030 | | 00013 | - 00030 | 120 | 00023 | - 00050 | 210 |
| 8 | | 129 | 00030 | - 00043 | | 00030 | - 00045 | _ | 0000 | - 00045 | 090 | 00020 | - 00076 | 960 |
| 00120 | 00200 | 1 000 | 000 | 09000 | _ | 000 | • | | 00045 | 09000 - | 136 | 9000 | - 00100 | 024 |
| 333 | - 00230 | 570 | | 200 - | 960 | 09000 | - 00075 | 024 | 09000 | - 00075 | 090 | 00100 | - 00125 | 960 |
| 00220 | - 00300 | 023 | 00075 | - 000090 | 047 | 00073 | 06000 ~ | 980 | 00073 | - 00000 | 960 | 00125 | - 00130 | 048 |
| 00300 | - 00:320 | 047 | 06000 | - 00105 | | 06000 | - 00105 | | 06000 | - 00103 | 012 | 00130 | - 00175 | 036 |
| 00320 | - 00400 | 070 | 00105 | - 00120 | | 00103 | - 00120 | _ | 50100 | - 00120 | 090 | 00175 | - 00200 | 024 |
| 00400 | 1 00500 | 093 | 00120 | - 00120 | _ | 00120 | - 00120 | 090 | 00120 | - 00150 | 960 | 00200 | - 00225 | 048 |
| 00200 | 00900 - | 033 | 05100 120 | - 0050 | 033 | 00150 | - 00200 | 073 | 00120 | - 00200 | 072 | 00225 | - 00220 | 036 |
| 00900 | - 00800 | 103 | 00200 | - 00220 | 011 | 00200 | - 00250 | 090 | 00200 | - 00250 | 036 | 00250 | - 00275 | 048 |
| 0000 | - 01000 | | 00220 | - 00300 | | 00250 | - 00300 | - | 00220 | - 00300 | 960 | 00275 | 00000 | 072 |
| 00010 | - 01250 | | 00300 | 1 0040 | _ | 00300 | - 00400 | | 00300 | - 00400 | 180 | 00000 | - 00325 | 024 |
| 05710 | - 01200 | 047 | 00400 | 00900 | | 80450 | 00900 - | • | 00400 | 00900 - | 090 | 00325 | - 00320 | 048 |
| 00200 | - 02000 | 90 90 90 90 90 90 90 90 90 90 90 90 90 9 | 00900 | - 0090 | 058 | 00900 | - 00800 | 128 | 00900 | - 00800 | 024 | 00320 | - 00400 | 072 |
| 02000 | - 03000 | 047 | 00600 | - 01300 | 103 | 00600 | - 01500 | 090 | 00600 | 001300 | ₩00 | 00400 | 00500 | 144 |
| 03000 | - 04000 | 023 | 01200 | - 02500 | | 01300 | - 02500 | _ | 00000 | 002200 | 220 | Ş | 00230 | 9 |
| 04000 | 00090 - | 023 | 02200 | - 05000 | | 02200 | - 05000 | Ī | 02200 | - 02000 | 100 | 00730 | 00010 | 072 |
| 00090 | - 12000 | 011 | 02000 | | | 02000 | 10000 | 000 | 02000 | 10000 | 000 | 00010 | - 02000 | 024 |
| > 12000 | 8 | 8 | 10000 | 00 | 000 | > 10000 | 000 | 000 | 00001 < | | 8 | > 02000 | | 8 |
| NO OF MEASUR | EASUR. | £8000+ | NO OF | NO OF MEASUR. | +00083 | NG OF | NO OF MEASUR. | +00082 | NO OF | MEASUR. | +000083 | NO 05 | HEASUR. | +00083 |
| MERN | [X10E-2] | €0600+ | MEAN | [X10E-2] | 1 +00589 | MEAN | [X10E-3] | +00322 | MEAN | [X10E-4] | +00196 | HERN | [X10E-5] | +00393 |
| STOPPA | CX10E-21 | +01127 | SIGMA | (X10E-21 | +01004 | SIGNA | SIGM [X10E-31 +00362 | +00362 | SIGMO | SIGMA_CX10E-41 +00291 | +00291 | SIGMA | SIGMA_ [X10E=5] +00251 | +00251 |

TABLE: 57

ZUGSPITZE PEAK 3000 M

PERIOD: 1970-1980

PARAMETER = RELATIVE HUMIDITY 61-70%

| | | | ! | | | | | | | | | | |
|------------------------------|-----------|----------------------------|----------|-----------------------|----------------|----------|-----------------------|----------------------------|----------|-----------------------|----------------------------|----------|-----------|
| D1 = 0. 23 MI | | D2 = 0. 45 | 12 H | | . 6. 9. | 0. 93 MI | | 04 = 2. | 2. 00 MI | | BS = 4. 50 H | 14 06 | |
| RES. NR. : 462 | | RES. NR. | .: | | RES. NR. : | 464 | | RES. NR. | 463 | | RES. NR. : | . 466 | |
| PARTICL, CONC. F. CX10E-21 C | FREQUENCY | PARTICL. CONC. TX10E-21 | | FREGUENCY [1/10 X] | PARTICL. CONC. | | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-4] | | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-51 | | FREGUENCY |
| < 00020 - | 032 | \$1000 × | 510 | 000 | \$ 00012 | ır. | 910 | × 00013 | ŭ | 033 | - C 00025 | 23 | 600 |
| ı | 290 | 00013 | | 024 | - 21000 | _ | 025 | 21000 | _ | 082 | 00025 | _ | 600 |
| ı | 963 | 00030 | - 00043 | 024 | - 0000 | 00043 | 033 | 00030 | - 00045 | 660 | 00020 | - 00076 | 800 |
| 1 | 048 | 0000 | 09000 | 040 | 0000 | 09000 | 042 | 00043 | 09000 - | 074 | 9000 | 1 00100 | 028 |
| 00200 - 00200 | 032 | 09000 | - 00075 | 040 | - 09000 | 00073 | 850 | 09000 | - 00075 | 6 4 0 | 8 8 8 | - 00125 | 926 |
| ı | 920 | 00073 | 06000 - | 024 | - 600075 | 06000 | 790 | 00075 | 06000 - | 037 | 00125 | - 00150 | 018 |
| ı | 032 | 06000 | - 00103 | 800 | - 06000 | 00103 | 042 | 06000 | - 00103 | 027 | 00120 | - 00175 | 056 |
| 1 | 036 | 20100 | - 00150 | 048 | - 50100 | 00120 | 033 | 00103 | - 00120 | 800 | 00175 | - 00200 | 037 |
| 1 | 024 | 00120 | - 00150 | 4 90 | 00120 | 00150 | 033 | 00170 | - 80130 | 100 | 00200 | - 00225 | 910 |
| 00900 - 00500 | 024 | 06100 | - 00200 | 040 | - 00120 | 00200 | 075 | 00120 | - 00200 | 057 | 00225 | - 00220 | 028 |
| 00000 - 00900 | 673 | 00200 | 000200 | 033 | 00000 | 08000 | 280 | 0000 | 100340 | 110 | 20,780 | A7.000 | 750 |
| ı | 90 | 00250 | 00300 | 016 | 00250 | 00000 | | 00220 | 00300 | 200 | 200 | 1 00300 | 200 |
| ı | 180 | 0000 | - 00400 | 048 | 00000 | 00400 | 88 | 00000 | - 00400 | 027 | 00000 | - 00325 | 047 |
| 1 | 048 | 00400 | 00900 - | 072 | - 00400 | 00900 | 8 | 00400 | 00900 - | 990 | 00325 | - 00320 | 460 |
| 01500 - 02000 | 180 | 00900 | 00600 - | 880 | - 00900 | 00600 | 8 | 00900 | - 00800 | 074 | 00320 | - 00400 | 684 |
| 02000 - 03000 | 032 | 00600 | - 01500 | 128 | - 00600 | 01200 | 126 | 00600 | - 01300 | 140 | 00400 | - 00300 | 084 |
| 03000 - 04000 | 190 | 01200 | - 02500 | 141 | 01500 | | 98 | 01200 | - 02500 | 920 | 00200 | - 00750 | 169 |
| • | 063 | 02200 | 02000 | 120 | 02500 | 02000 | 042 | 02200 | - 02000 | 8 | 00750 | - 01000 | 075 |
| 00000 - 12000 | 032 | 02000 | 00001 | 040 | 02000 | 10000 | 8 | 02000 | 10000 | 8 | 00010 | - 02000 | 084 |
| > 12000 | 8 | 10000 | 000 | 000 | 00001 ^ | • | 8 | 10000 | 8 | 8 | > 02000 | 8 | 8 |
| NO OF MEASUR. | +00123 | NO OF MEASUR. | MEASUR. | +00125 | NO OF MEASUR. | ASUR. | +00119 | NO OF MEASUR | EASUR. | +00121 | NO OF MEASUR | EASUR. | +00100 |
| MEAN [X10E-23 | +01423 | HEAN | [X10E-2] | +01234 | MEAN | CX10E-31 | +00019 | HEAN | CX10E-43 | +00362 | MEAN | CK10E-53 | +00444 |
| SIGM [X10E-2] | +01702 | SIGHA | (X10E-2) | +01424 | STOWN (| (X10E-3) | +00720 | STOPPA | [X10E-4] | +00200 | STOPPA | [X10E-5] | +00306 |
| | | | | | | | | | | | | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 58

ZUGSPITZE PEAK 3000 M

PERIOD: 1970-1980

PARAMETER RELATIVE HUMIDITY 71-80%.

| | | PRINTER DEPARTMENT | | | | | | | | | | | | |
|----------------------------|------------|-----------------------|-------------------------|----------------------------|-----------------------|----------------|--------------------|---------------------------------|---|--------------------|------------|----------------|--------------------------------|------------|
| | | • | | | | | | | | | | | | |
| 0. | ■ 0. 23 MI | | 02 = 0 | D2 = 0. 45 MI | | D3 = 0. 93 MI | 93 HI | | D4 = 2. | 2. 00 MI | | 8 | - 4. 50 MI | |
| RES. NR. | . 467 | | RES. NR. | 1: : 468 | | RES. NR. : | . 469 | | RES. NR. | . 470 | | RES. NR. : | .: 471 | |
| PARTICL. CONC. EX10E-21 | | FREQUENCY [1/10 X] | PARTIC EX1 | PARTICL. CONC. EX10E-23 | FREGUENCY [1/10 X] | PARTICL. CONC. | | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-4] | | FREQUENCY | PARTIC CX1 | PARTICL. CONC. F [X10E-5] [| FREGUENCY |
| 05000 > | _ | 920 | < 00015 | | | 8 | | 011 | 8 | | 032 | < 00025 | | 8 |
| 0000 | 86.0 | 8 8 | 00030 | - 00030 - 00045 | 0.35 | 00030 | - 00030 - 00043 | 0 0 0 0 0 0 0 | 00013 | - 00030 - 00043 | 052 052 | 00030 00030 | - 00050 | 906 910 |
| 00150 00200 | - 00200 | 036 018 | 00045 | - 00060 | 6 053 047 | 00043 | - 000000 | 047 | 000043 | - 000000 | 088 058 | 00076 00100 | - 00100 | 018 |
| 00220 | - 00300 | 080 | 00075 | 06000 - | 0 023 | 00073 | - 000090 | 023 | 00073 | - 000090 | 020 | 00125 | - 00130 | 049 |
| 00000 | 00320 | 936 | 06000 | - 00103 | | 06000 | - 00103 | 047 | 06000 | - 00105 | 047 | 00130 | - 00175 | 810 |
| 0000 | 00400 | 7 | 2000 | - 00120 | | 00100 | - 00120 | 047 | 00103 | - 00120 | 047 | 80175 | - 00200 | 043 |
| 0000 | 00900 | 8 9 | 00 130 130 130 | - 00200 | 24 | 02120 02130 | - 00200 | 083 | 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0 | - 00200 | 8 I | 00220 | - 00220 | 031 031 |
| 00900 | 00800 | 084 | 00200 | - 00220 | 082 | 00200 | - 00220 | 047 | 00200 | - 00220 | 490 | 00220 | - 00275 | 037 |
| 00800 | 01000 | 990 | 00220 | - 00300 | | 00220 | - 00300 | 011 | 00220 | - 00300 | 920 | 00275 | - 00300 | 040 |
| 0000 | 01250 | 072 | 0000 | 1 1 | 029 | 888 | 1 1 | 460 | 0000 | 00400 | 490 | 00000 | - 00325 | 6 6 |
| 00210 | - 02000 | 8 | 00900 | 00600 - | | | 00600 - | 088 | 00900 | 00800 | 0.28 | 00320 | 00400 | 88 |
| 02000 | - 03000 | 078 | 00600 | - 01500 | 0 112 | 00600 | - 01500 | 901 | 00600 | - 01500 | 041 | 00400 | - 00300 | 149 |
| 03000 | 04000 | 990 | 01200 | - 02500 | | | - 02200 | 071 | 00210 | - 02500 | 210 | 00200 | - 00750 | 130 |
| | 00000 | 060 | 02200 | 00000 | 136 | 02500 | 02000 - | 011 | 02500 | 02000 | 00 | 00750 | 00010 - | 660 |
| > 12000 | | 88 | - 00001 < - ? | - 000 - | | - 00001 < | 0001 - 00 | 88 | - 00000 | 00001 | 88 | - 01000 02000 | - 02000 - | 8 8 |
| 20 OF | MEASUR. | +00166 | 70 OF | MEASUR. | +00169 | NO OF H | MEASUR. | +00169 | NO 04 | MEASUR. | +00170 | 55 PP OF | MEASUR. | +00161 |
| MEAN | CK10E-23 | +01382 | FEAN | [X10E-2] | 13 +01125 | HEAN | [X10E-3] | +00499 | HEAN | [X10E-4] | +00263 | MEAN | (X10E-5) | +00448 |
| SIGMA | [X10E-2] | +01704 | SIGMA | [X10E-2] | 1 +01370 | STOMA | [X10E-3] | +00003 | SIGMA | SIGMA [X10E-4] | +00354 | SIGNA | SIGNO [X10E-51 | +00299 |
| | | : | | | | | | | | | | | | |

PARAMETER= RELATIVE HUMIDITY 81-90%

TABLE: 59

ZUGSPITZE PEAK 3000 M

| D1 = 0.23 H1 | | D2 = 0.45 MI | | D3 = 0.93 MI | | D4 = 2.00 HI | | BS = 4. 50 | Ī | |
|---------------------------------|-----------------------|----------------------------|-----------------------|--------------------------------|-----------------------|--------------------------------|---------------------------------------|----------------------------|----------|-----------------------|
| RES. NR. : 472 | | RES. NR.: 473 | | RES. NR. : 474 | | RES. NR. : 475 | | RES. NR. : | 476 | |
| PARTICL. CONC. FI LX10E-23 C | FREQUENCY (1/10 X) | PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 X] | PARTICL. CONC. F [X10E-3] [| FREGUENCY [1/10 %] | PARTICL. CONC. F [X10E-4] [| FREGUENCY [1/10 X] | PARTICL. CONC. [X10E-5] | | FREGUENCY [1/10 X] |
| 0020 | 013 | 0013 | | 0015 | 017 | 5100 | 033 | < 00025 | | 8 |
| 0000 - 0000 | 030 | 00015 - 00030 | | ı | | ı | 8 | 00025 | 0000 | 8 |
| 1 | 021 | , , | | 00045 - 00045 | 000 | 000430 - 00043 | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | 00030 | 9 6 | 2 2 |
| • | 013 | ı | 950 | + | 034 | ı | 690 | 00100 | 00125 | 017 |
| 00220 - 00300 | 030 | 00073 - 000 | 000 | 000022 00030 | 025 | 00073 - 00090 | 028 | 00125 - | 00150 | 048 |
| ı | 032 | 00000 - 00102 | | i | | 1 | 054 | 00120 | 00175 | 048 |
| 1 | 033 | 1 | | t | | ı | 033 | - 52100 | 00200 | 030 |
| ı | 50 0 | 00120 - 00120 | 20 026 | 1 | | ٠ | 690 | 00200 | 00225 | 052 |
| 00900 - 00500 | 680 | 00150 - 002(| | 00120 - 00200 | E90 | 00150 - 00200 | 113 | 00225 - | 00250 | 048 |
| ı | 115 | 00200 - 00250 | 035 | 00200 - 00250 | 042 | 00200 - 00250 | 950 | 00230 - | 00275 | 026 |
| ŀ | 180 | ı | _ | 00250 - 00300 | 029 | ı | 037 | 00275 - | 00000 | 052 |
| ł | 097 | j | _ | ı | 890 | ı | 042 | 00000 | 00325 | 38 |
| 01250 - 01500 | 4 6 | 00400 - 00600 | 190 | , | 680 | 1 | 880 | 00325 - | 00320 | 025 |
| 1 | 76 | - 00000 | _ | 00400 - 00900 | 160 | 00600 - 00900 | 9 | 003200 | 00400 | 920 |
| 1 | 110 | 00900 - 01500 | | t | | ı | 028 | - 00400 | 00200 | 127 |
| ı | 440 | 1 | | • | | 1 | 021 | 00200 | 00750 | 192 |
| ı | 790 | 1 | | ı | _ | • | 8 | 00730 | 01000 | 290 |
| 00000 - 12000 | 038 | | _ | 02000 - 10000 | 000 | 02000 - 10000 | 8 | 00010 | 05000 | 092 |
| 2 12000 | 8 | 10000 | 8 | > 10000 | 000 | > 10000 | 8 | > 02000 | | 8 |
| NO OF MEASUR. | +00226 | NO OF MEASUR. | +00228 | NO OF MEASUR. | +00235 | NO OF MEASUR | +00238 | NO OF MEASUR | SUR. | +00228 |
| MEAN [X10E-2] | +01585 | HEAN (X10E-23 | 13 +01219 | MEAN (X10E-3) | +00284 | MEAN [X10E-4] | +00279 | HEAN CX | (X10E-5) | +00452 |
| SIGHA [X10E-2] | +01647 | SIGHA [X106-2] | 13 +01454 | SION [X10E-3] | +00096 | STOMA CX10E-41 | +00382 | STOPPA EX | [X10E-5] | +00305 |
| | | | | | | | | | | |

T

1

FREQUENCY 018 020 053 063 061 082 098 026 018 000 061 055 063 076 072 039 034 041 063 +00291 +00214 PERIOD: 1970-1980 00150 00175 00200 00225 00250 00050 00076 00100 00125 00275 00300 00325 00350 00500 00750 01000 02000 EX10E-53 [X10E-5] PARTICL. CONC. EX10E-51 Ξ 8 < 00025 RES. NR. 00025 00050 00076 00100 00400 00500 00750 01000 동 SIGHA 00125 00130 00175 00200 00225 00250 00300 00325 00350 2 FREQUENCY 099 139 097 073 034 032 024 018 018 052 070 040 056 038 +00116 +00202 00250 00300 00400 00600 00900 00030 00045 00060 00075 01500 02500 05000 10000 00090 00105 00120 00150 **EX10E-41** PARTICL. CONC. [X10E-4] MEASUR Ī 2.00 RES. NR. 00900 01500 02500 05000 00075 00090 00105 00120 00200 00250 00300 00400 00600 SIGMA 3 FREGRENCY 053 095 071 071 053 067 063 073 044 038 079 061 044 88888 +00394 +00490 ZUGSPITZE PEAK 3000 M 00030 00045 00060 00075 00090 00105 00120 00150 00250 00300 00400 00600 01500 02500 05000 10000 [X10E-3] PARTICL, CONC. [X10E-3] **MEASUR**. Ξ C 00015 - 00015 - 000030 - 000045 - 000 0.93 10000 RES. NR. 00900 01500 02500 05000 00075 00090 00105 00120 00150 SIGHA 00200 00250 00300 00400 FREQUENCY 032 051 026 057 057 0%0 0%1 010 000 +01072 0.45 0.45 0.67 0.82 0.72 047 065 061 045 +00486 +00703 **>95**% 00030 00045 00060 00075 01500 02500 05000 10000 00090 00105 00120 00150 00200 00250 00300 00400 00600 00500 RELATIVE HUMIDITY PARTICL. CONC. [X10E-2] NO OF MEASUR. Ξ £ < 00015 RES. NR. Ö 00015 00030 00045 00060 00900 01500 02500 05000 00200 00250 00300 00400 SIGMA 00075 00090 00105 00120 HEAR FREQUENCY +01114 053 052 063 063 063 098 063 049 034 076 034 043 020 031 024 037 +00486 +01430 PARAMETER= 00800 01000 01250 01500 00100 00150 00200 00250 00300 00350 00400 00500 03000 04000 06000 12000 [X10E-2] [X10E-23 3 Ξ PARTICL. CONC. [X10E-23 NO OF MEASUR **= 0.23** TABLE: 000030 > 12000 RES NR. 02000 0:3000 0:4000 00030 00100 00130 00200 00250 00350 00350 00400 00500 00600 00800 01000 01250 BIOMA Z Z

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PARAMETER - VERY LOW AEROSOL CONCENTRATION <5 X 10E-6 G/CU M GARMISCH (VALLEY 740 M) TABLE: 61

| DI = 0.23 HI | | D2 = 0. | . 45 HI | | D3 = 0.93 MI | I I | | D4 = 2. | 2. 00 MI | | DS = 4. | = 4.50 HI | |
|-----------------|-----------------------|----------------------------|---------------|-----------------------|----------------------------|----------------|-----------------------|----------------------------|----------|-----------------------|----------------------------|-----------|-----------------------|
| RES. NR. : 292 | | PES. NR. | .: 293 | | RES. NR. : | 294 | | RES. NR. : | . 295 | | RES. NR. : | .: 296 | |
| PARTICL. CONC F | FREQUENCY (1/10 X) | PARTICL. CONC. [X10E-2] | | FREGUENCY [1/10 X] | PARTICL. CONC. CX10E~33 | _ | FREGUENCY [1/10 x] | PARTICL. CONC. EX10E-41 | | FREGUENCY [1/10 %] | PARTICL, CONC. [X10E-5] | _ | FREGUENCY [1/10 %] |
| < 00200 | 167 | × 00200 | 200 | 149 | < 00150 | | 196 | ¢ 00020 | 020 | 990 | C 00200 | 200 | 003 |
| i | 131 | 00200 | _ | 192 | 00150 | 00000 | 226 | 00020 | | 112 | 00200 | - | 046 |
| ı | 128 | 00000 | - 01200 | 162 | 00300 | 00 00 | 163 | 00100 | 00120 | 132 | 00400 | 00900 - | 107 |
| 02000 - 02500 | 690 | 02000 | - 02500 | 688 | 00900 | 00000 00750 | 020 | 00700 | - 00200 | 5 5 | 00800 | 00800 | 117 093 |
| 02300 - 03000 | 047 | 00500 | 03000 | - 643 | 00250 | 00000 | 244 | 00040 | - | 450 | 2 | 0000 | 000 |
| 1 | 029 | 03000 | 03200 | 680 | - 00800 | 01050 | 022 | 00500 | 00320 | 980 | 01700 | 01400 | 080 |
| • | 032 | 03200 | - 04000 | 610 | 01020 | 01200 | 920 | 00320 | 00400 | 042 | 01400 | - 01600 | 040 |
| , | 052 | 04000 | - 04500 | 910 | 01200 - | 01350 | 022 | 00400 | - 00500 | 062 | 00910 | - 01800 | 020 |
| 02000 - 00050 | 049 | 04500 | - 03000 | 910 | 01350 - | 01200 | 013 | 00200 | 00900 - | 020 | 01800 | - 02000 | 290 |
| 00000 - 00090 | 046 | 02000 | - 00000 | 029 | 01300 | 01650 | 600 | 00900 | - 00200 | 026 | 02000 | - 02250 | 036 |
| 1 | 619 | د 0ور ء | - 02000 | 610 | 01650 - | 01800 | 900 | 00200 | - 00800 | 036 | 02220 | - 02500 | 040 |
| ı | 053 | 20 | 00000 - | 033 | - 00810 | 02000 | 8 | 00800 | - 00300 | 980 | 02200 | 03000 | 690 |
| ı | 052 | 0690 | 0000 | 910 | 05000 | 02200 | 910 | 00600 | - 01000 | 900 | 03000 | - 03200 | 030 |
| 15000 - 25000 | 026 | <u> </u> | 12000 | 036 | 02500 - | 03000 | 600 | 00010 | - 01250 | 610 | 03200 | - 04000 | 043 |
| 25000 - 40000 | 013 | 1500 | 0000 | 010 | 03000 | 04000 | 022 | 01250 | - 01500 | 026 | 04000 | - 03000 | 046 |
| 40000 - 60000 | 600 | 200 | 30000 | 910 | 04000 | 00000 | 016 | 01200 | - 02000 | 023 | 02000 | - 02000 | 020 |
| • | | 300, | 40000 | 600 | 000090 | 10000 | 900 | 02000 | - 03000 | 026 | 02000 | - 09000 | 020 |
| 80000 - 100000 | 000 | 40000 | - 30000 | 000 | 10000 | 20000 | 000 | 03000 | 00090 - | 900 | 03000 | - 12000 | 000 |
| 200001 < | 8 | > 30000 | 8 | 8 | > 20000 | | 000 | 00090 < | | 000 | > 12000 | | 000 |
| NO OF MEASUR. | +00304 | NO OF 1 | NO OF MEASUR. | 100301 | NO OF MEASUR | | +00302 | NO OF MEASUR | MEASUR. | +00303 | NO OF MEASUR. | MEASUR. | +00298 |
| MEAN CX10E-23 | +04025 | HEAN | [X10E-2] | +03328 | MEAN CX1 | [X10E-3] | £6900+ | MEAN | [X10E-4] | +00444 | MEAN | [X10E-5] | +01934 |
| SIGM [X10E-2] | +05344 | SIGMA | [X10E-2] | +05258 | STONA CX1 | (X10E-3) | +01041 | SIGMA | CX10E-43 | +00557 | SIGMA | [X10E-5] | +01677 |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PERIOD: 1970-1980

TABLE: 62 GARMISCH (VALLEY 740 M)

PARAMETER = AEROSOL CONCENTRATION: 10-15 X 10E-6 G/CBM

| 02 = 0. 45 HI RES. NR. : 478 | | 2 2 2 | | | | | | | | |
|----------------------------------|---------------------------|---------------------------|-------|-----------------------|---------------|--|---|--|---|--|
| . 45 HI I.: 478 | | - CO | | | | | | _ | ; | |
| | | ? : : | Ï | | D4 = 2. | 2. 00 MI | | 15 - 4. 50 M | II On | |
| | | RES. NR. : | 479 | | RES. NR. : | : : 48 0 | | RES. NR. | 184 : | |
| PARTICL, CONC. FR [X10E~2] [1 | REGUENCY 1/10 X3 | PARTICL CONC. [X10E-3] | | FREQUENCY [1/10 X] | PARTIC CXI | PARTICL. CONC. | FREQUENCY | PARTIC CX1 | PARTICL. CONC. F | FREQUENCY |
| C 00500 | | 00130 | _ | | Š | G. | 747 | Ş | 8 | 710 |
| | 187 | 00150 - | 00300 | 173 | 00020 | | | 00500 | _ | 190 |
| - 01500 | 122 | - 00000 | 00450 | 141 | 00100 | - 00130 | • | 00400 | 00900 - | 290 |
| - | 052 | 00450 | 00900 | 132 | 00120 | - 00200 | • | 00900 | _ | 083 |
| - 02200 | 020 | - 00900 | 00750 | 075 | 00500 | - 00250 | | 0000 | - 01000 | 101 |
| 00000 - | 660 | - 00750 | 00600 | 690 | 00220 | - 00300 | | 01000 | - 01200 | 680 |
| - 03200 | 046 | - 00600 | 01050 | 075 | 00300 | - 00320 | | 01200 | - 01400 | 071 |
| 04000 | 046 | 01050 - | 01200 | 075 | 00320 | - 00400 | | 01400 | 00910 - | 047 |
| - 04300 | 023 | 01200 | 01320 | 110 | 00400 | - 00200 | | 01600 | - 01800 | 028 |
| 02000 | 040 | 01350 | 01200 | 023 | 00200 | - 00900 | | 00800 | - 02000 | 029 |
| 00090 - | 046 | 01500 - | 01650 | 210 | 00900 | - 00700 | Ī | 02000 | - 02250 | 047 |
| - 07000 | 0110 | - 01650 | 01800 | 017 | 00200 | 00800 | | 02220 | - 02500 | 033 |
| 00000 - | 8 | - 0010 | 02000 | 017 | 00800 | - 000000 | | 02200 | - 03000 | 047 |
| 10000 | 490 | 02000 | 02200 | 023 | 00600 | - 01000 | | 03000 | - 03200 | 041 |
| - 12000 | 040 | 02200 - | 00000 | 110 | 00010 | - 01250 | | 03200 | - 04000 | 023 |
| - 20000 | 040 | 03000 | 04000 | 028 | 01250 | 005100 | | 0400 | 000000 | 053 |
| - 30000 | 110 | 04000 | 00090 | 028 | 01500 | - 02000 | , | 02000 | - 07000 | 083 |
| - 40000 | 500 | - 00090 | 10000 | 017 | 02000 | - 03000 | | 00000 | 00060 - | 000 |
| | 88 | 10000 - | | 000 | 03000 | _ | | 00060 | | 000 |
| 3 | 3 | 7 20000 | _ | 2 | Š | 9 | 9 | ŽI ^ | 8 | 000 |
| NO OF MEASUR. | 12100+ | NO OF MEA | SUR. | +00173 | NO ON | MEASUR. | +00169 | NO OF | EASUR. | +00168 |
| (X10E-2) | +04115 | MEAN CX | | +01010+ | MEAN | [X10E-4] | +00618 | MEAN | [X10E-5] | +02057 |
| (X10E-2) | 05268 | SIGMA EX | | +01268 | SIGNO | [X10E-4] | +00689 | SIGMA | [X10E-51 | +01693 |
| 0000 1 | 7 7 8888 88888 88888 8888 | 21 | 0993 | 093 | 093 | 093 C 00150 057 500 187 00150 - 00300 173 500 122 00300 - 0450 144 500 075 - 06600 132 500 075 - 0650 132 500 075 - 0750 075 500 046 0750 - 0150 075 500 046 01050 - 0150 075 500 046 01050 - 0150 075 500 040 01350 - 017 017 500 040 01550 - 0150 017 500 040 01550 - 0150 017 500 040 02500 - 02500 017 500 040 02500 - 02500 017 500 040 02500 - 0400 028 500 060 - 1000 028 500 060 - 1000 000 <tr< td=""><td>093 C 00150 057 500 187 00150 00300 173 500 122 00300 075 144 500 075 00450 075 144 500 070 00450 075 144 500 070 00450 075 075 500 046 00750 0120 075 500 046 01050 015 075 500 046 01050 011 015 500 040 01350 017 017 500 040 01350 017 017 500 040 01500 017 017 500 040 02500 023 017 500 040 02500 028 000 500 040 02500 028 000 500 040 02000 028 000 500 060 06</td><td>093 C 00150 057 C 0050 0 000 187 00150 - 00300 173 00050 - 00100 500 122 00300 - 00450 144 00100 - 00150 500 075 - 00450 - 00450 - 00450 - 00200 - 00200 500 077 - 00750 - 00750 - 00750 - 00250 - 00250 500 046 00700 - 01050 075 00300 - 00350 500 046 01050 - 01350 011 00400 - 00300 500 040 01350 - 0150 075 0030 - 00400 500 040 01350 - 0150 077 00400 - 00400 500 040 01350 - 0150 0070 - 0050 - 0050 500 040 02500 - 0250 011 0000 - 0150 500 040 02500 - 0250 023 0200</td><td>093 < 00150 0 300 173 < 00050 0 0100 0 047 500 187 00150 − 00300 173 00050 − 00100 082 500 132 00450 − 00450 132 00150 − 00150 082 500 0750 − 00450 132 00150 − 00250 076 500 0750 − 00750 − 00750 075 00250 − 00250 076 500 046 01050 − 01200 075 00300 − 00300 077 500 046 01050 − 01500 073 00300 − 00300 077 500 046 01500 − 01500 073 00300 − 00400 077 500 046 01500 − 01500 023 00700 − 00400 077 500 040 01500 − 01500 023 00700 − 01500 077 500 040 02500 − 01</td><td>093 < 00150 0570 < 00050 00100 082 < 00200 950 132 00150 00300 173 00050 00150 00200 0 950 132 00150 00450 144 00100 0</td></tr<> | 093 C 00150 057 500 187 00150 00300 173 500 122 00300 075 144 500 075 00450 075 144 500 070 00450 075 144 500 070 00450 075 075 500 046 00750 0120 075 500 046 01050 015 075 500 046 01050 011 015 500 040 01350 017 017 500 040 01350 017 017 500 040 01500 017 017 500 040 02500 023 017 500 040 02500 028 000 500 040 02500 028 000 500 040 02000 028 000 500 060 06 | 093 C 00150 057 C 0050 0 000 187 00150 - 00300 173 00050 - 00100 500 122 00300 - 00450 144 00100 - 00150 500 075 - 00450 - 00450 - 00450 - 00200 - 00200 500 077 - 00750 - 00750 - 00750 - 00250 - 00250 500 046 00700 - 01050 075 00300 - 00350 500 046 01050 - 01350 011 00400 - 00300 500 040 01350 - 0150 075 0030 - 00400 500 040 01350 - 0150 077 00400 - 00400 500 040 01350 - 0150 0070 - 0050 - 0050 500 040 02500 - 0250 011 0000 - 0150 500 040 02500 - 0250 023 0200 | 093 < 00150 0 300 173 < 00050 0 0100 0 047 500 187 00150 − 00300 173 00050 − 00100 082 500 132 00450 − 00450 132 00150 − 00150 082 500 0750 − 00450 132 00150 − 00250 076 500 0750 − 00750 − 00750 075 00250 − 00250 076 500 046 01050 − 01200 075 00300 − 00300 077 500 046 01050 − 01500 073 00300 − 00300 077 500 046 01500 − 01500 073 00300 − 00400 077 500 046 01500 − 01500 023 00700 − 00400 077 500 040 01500 − 01500 023 00700 − 01500 077 500 040 02500 − 01 | 093 < 00150 0570 < 00050 00100 082 < 00200 950 132 00150 00300 173 00050 00150 00200 0 950 132 00150 00450 144 00100 0 |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

The second secon

TABLE: 63 ' GARMISCH (VALLEY 740 M)

PERIOD: 1970-1980

PARAMETER = AEROSOL CONCENTRATION: 20-25 X 10E-6 G/CBM

| D1 = 0.23 | . H | | D2 = 0. 45 | 45 HI | | D3 = 0.93 HI | 93 HI | | D4 = 2. | 2. 00 HE | | 1H 2C 'F = CO | 1H 0G | |
|----------------------------|---|-----------|----------------------------|-------------------------|-----------------------|----------------------------|----------|-----------------------|------------------|------------------|-----------------------|----------------------------|----------|-----------------------|
| RES. NR. : | 482 | | RES. NR. : | | | RES. NR. | 4 | | RES. NR. : | .: 463 | | RES. NR. : | 486 | |
| PARTICL. CONC. [X10E-2] | _ | FREQUENCY | PARTICL. CONC. [X10E-2] | TICL. CONC. [X10E-2] | FREGUENCY [1/10 X] | PARTICL. CONC. [X10E-3] | _ | FREQUENCY [1/10 X] | PARTIC | PARTICL. CONC. F | FREGUENCY [1/10 %] | PARTICL. CONC. [X10E-5] | _ | FREGUENCY [1/10 %] |
| 00200 > | | 92 | 00200 > | 8 | 083 | < 00120 | 920 | 90 | 00020 × | 020 | 032 | < 00200 | 002 | 000 |
| 00200 | 00010 | 801 | 00200 | - 01000 | | 00130 | - 00300 | 167 | 00020 | - 00100 | 071 | 00200 | - 00400 | . 027 |
| 00000 | 01200 | 490 | 000 | 1 0000 | 085 087 | 00300 | 00430 | 960 | 8 8 | 00130 | 032 | 96 | 00900 | 067 |
| 05000 | 02300 | 920 | 02000 | - 02500 | | 00600 | 00730 | 601 | 00200 | - 00250 | 800 | 00800 | 01000 | 80 |
| 002200 | 00000 | 020 | 0000 | - | 030 | 08700 | 50000 | 96.0 | 200 | 1 | 700 | 2 | 25.00 | 670 |
| 03000 | 03200 | 020 | 03000 | 03200 | | 300 | 2000 | 3 2 | 00000 | | 970 | 300 | 20710 | 8 |
| 03200 | 04000 | 490 | 03200 | - 04000 | | 05010 | - 01200 | 000 | 00320 | - 00400 | 0 | 01400 | - 01600 | 047 |
| 04000 | 02000 | 057 | 04000 | - 04500 | | 01200 | - 01350 | 800 | 00400 | - 00300 | 160 | 00910 | - 01800 | 074 |
| 02000 | 00090 | 190 | 04200 | 00200- | | 01350 | - 01200 | 021 | 00200 | - 00900 | 120 | 01800 | - 02000 | 034 |
| 00090 | 00000 | 022 | 02000 | 00090 | | 01500 | - 01650 | | 00900 | - 00700 | 860 | 02000 | - 02250 | 960 |
| - 00020 | 00000 | 610 | 00090 | - 07000 | | 01630 | 01800 | | 00700 | 00800 - | 98 | 02220 | - 02500 | 033 |
| 00080 | 0000 | 021 | 0000 | 00080 | | 01800 | - 02000 | 025 | 00800 | 00600 - | 052 | 02200 | 03000 | 087 |
| 1 2000 | 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 | 0.083 | 0000 | 1 10000 | 000 | 02000 | 02200 | 070 | 00300 | - 01000 | 035 | 03000 | 03500 | 0 0 |
| 3000 | 0000 | 9 | | | | | | , (| | | | | | |
| 40000 | 2000 | | 2000 | 1 1 | | 0000 | 00040 | 064 | 000 | 00000 | 200 | | 00000 | 200 |
| - 00009 | 9000 | 8 | 30000 | 40000 | | 00090 | 10000 | | 05000 | | 610 | 00020 | 00060 | 013 |
| ı | 000001 | 000 | 40000 | 20000 | | 00001 | - 20000 | | 03000 | 00090 - | 032 | 00060 | - 12000 | 8 |
| 000001< | | 8 | 20000 | 00 | 000 | > 20000 | 000 | 8 | 00090 < | | 000 | > 12000 | 8 | 8 |
| NO OF HEASUR | | +00156 | NO OF | NO OF MEASUR. | +00137 | NO OF MEASUR | HEASUR. | +00155 | 5 0 0 1 | NO OF MEASUR. | +00153 | NO OF MEASUR | EASUR. | +00148 |
| MEAN CX1 | [X10E-2] | +06835 | MEAN | [X10E-2] | +05653 | MEAN | [X10E-3] | +01308 | MEAN | [X10E-4] | +00789 | MEAN | [X10E-5] | +02115 |
| STOPPA EX1 | [X10E-2] | +08829 | SIGMA | [X10E-2] | +06692 | SIGMA | [X10E-3] | +01327 | SIGMA | CX10E-43 | +00748 | STONA | CX10E-53 | +01577 |
| | | | | | | | | | | | | | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 64 GARMISCH (VALLEY 740 M)

| D1 = 0.23 MI | | 02 = 0. 45 |). 45 HI | | D3 = 0. 93 MI | Ī | | D4 = 2.00 MI | | BS = 4. 50 HI | Ï | |
|---|--|--------------------------------------|--|----------------------------|---|---|---------------------------------|--|---|--|---|--------------------------|
| RES. NR. : 467 | 28 | RES. NR. : | R. : 469 | | RES. NR. : | 489 | | RES. NR. : 490 | | RES. NR. : | 491 | |
| PARTICL. CONC. [X10E-2] | : FREGUENCY | PARTIC | PARTICL. CONC. F | FREQUENCY | PARTICL, CONC. [X10E-3] | | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-4] | FREGUENCY [1/10 %] | PARTICL. CONC. CX10E-53 | _ | FREQUENCY [1/10 %] |
| 00500 - 01000 - 01500 - 02000 | 01000 086 01500 049 02000 095 02500 033 | 00500 00500 01000 - 01500 - | 0500 - 01500 - 01500 - 02000 - 02500 | 012 046 067 059 | 00150 00150 00300 00450 00600 | 00300 00450 00600 00750 | 067 071 071 097 | C 00050 00050 = 001 00100 = 001 00150 = 002 | 00100 041 00150 041 00200 053 00250 053 | 00200 00200 - 00400 - 00600 - | 00400 00600 00800 01000 | 012 086 064 051 |
| 02300 03000 03500 04000 05000 | 03000 053 03500 033 04000 057 05000 045 | 02500 03500 04000 04500 | - 03000 - 03500 - 04000 - 05000 | 063 053 033 | 00750 - 00900 - 01050 - 01200 - 01350 | 00900 01050 01200 01350 01500 | 050 084 054 054 | 00250 - 002 00350 - 002 00400 - 004 00500 - 006 | 00300 049 00350 037 00400 024 00500 070 | 00000000000000000000000000000000000000 | 01200 01400 01600 01800 02000 | 051 094 077 025 |
| 06000 - 07 07000 - 06 08000 - 10 10000 - 15 15000 - 23 | 07000 049* 08000 024 10000 053 15000 107 25000 099 | 05000 06000 07000 08000 | 06000 | 072 050 033 059 | 01550 01650 01800 02000 | 01650 01800 02000 02500 03000 | 021 037 046 063 037 | 00600 - 006 00800 - 006 00900 - 006 00900 - 016 | 00700 062 00800 049 00900 029 01000 049 01250 078 | 02000 02250 02250 03000 | 02250 02500 03000 03500 | 051 043 056 073 |
| 25000 - 40 40000 - 60 60000 - 80 80000 - 100 >100000 | 40000 066 60000 016 80000 008 100000 000 | 15000 20000 40000 > 50000 | 20000 30000 1 1 40000 | 033 088 000 000 | 03000 - 04000 - 06000 - 10000 - > 20000 | 04000 06000 10000 20000 | 030 000 000 | 01250 - 015 01500 - 020 02000 - 030 03000 - 060 | 01500 058 02000 095 03000 049 06000 029 | 04000 - 05000 - 07000 - 090000 - 0900000 - 090000 - 090000 - 090000 - 090000 - 090000 - 090000 - 0900000 - 090000 - 090000 - 090000 - 090000 - 090000 - 090000 - 0900000 - 090000 - 090000 - 090000 - 090000 - 090000 - 090000 - 0900000 - 090000 - 090000 - 090000 - 090000 - 090000 - 090000 - 0900000 - 090000 - 090000 - 090000 - 090000 - 090000 - 090000 - 0900000 - 090000 - 090000 - 090000 - 090000 - 090000 - 090000 - 0900000 - 090000 - 090000 - 090000 - 090000 - 090000 - 090000 - 0900000 - 090000 - 090000 - 090000 - 090000 - 090000 - 090000 - 0900000 - 090000 - 090000 - 090000 - 090000 - 090000 - 090000 - 0900000 - 090000 - 090000 - 090000 - 090000 - 090000 - 090000 - 0900000 - 0900000 - 0900000 - 0900000 - 0900000 - 0900000 - 0900000000 | 05000 07000 09000 12000 | 000 000 000 000 |
| NO OF HEASUR. HEAN [X10E-2] SIGNA [X10E-2] | t. +00242 E-21 +08897 E-21 +11120 | NO OF MEAN SIGMA | NO OF MEASUR MEAN [X10E-2] SIGMA (X10E-2] | +00236 +07840 +08011 | NO OF MEASUR MEAN TX10E SIGMA TX10E | EASUR. [X10E-3] [X10E-3] | +00237 | NO OF MEASUR. MEAN (XIOE-4) SIGMA (XIOE-41 | +00241 -43 +00843 -41 +00747 | NO OF MEASUR MEAN (X10E STOMA (X10E | EASUR. [X10E-5] [X10E-5] | +02130 |

GARMISCH (VALLEY 740 M) TABLE: 65

PARAMETER = VERY HIGH AEROSOL CONCENTRATION >60 X 10E-6 G/CU M

| 10 | ■ 0. 23 HI | | | - 0. 45 MI | | 103 ■ 0. | 0. 93 HI | | D4 = 2. | 2. 00 MI | | 8 | 4. 50 MI | | |
|-------------------------|----------------------------|-----------------------|----------|--------------------------------|-----------------------|----------------------------|--------------------|------------|----------------------------|--------------------|-----------------------|----------------------------|----------|-----------------------|--|
| RES. NR. | 152 | | RES. NR. | k : 153 | | RES. NR. | 154 | | RES. NR. | . 155 | | RES. NR. | .: 156 | , | |
| PARTIC EXI | PARTICL, CONC. EXIOE-21 | FREGUENCY (1/10 X) | PARTIC | PARTICL. CONC. F [X10E-2] [| FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-3] | | FREGUENCY | PARTICL. CONC. [X10E-4] | _ | FREUDENCY [1/10 %] | PARTICL. CONC. [X10E-5] | | FREGUENCY [1/10 %] | |
| 00200 | | | 00200 | ` | 019 | 7 | _ ` | 000 | c 00050 | _ ` | 056 | < 00200 00300 | _ ` | 000 | |
| 00010 | 01200 | | 00010 | 00010 | 029 | | - 00450 | 041 | 00100 | - 00150 | 920 | 00400 | 00900 | 200 | |
| 02000 | - 02500 | 070 | 02000 | - 02500 | 86 | 00900 | - 00220 | 020 | 00200 | - 002200 | 018 | 00800 | 00000 | 081 | |
| 02200 | 03000 | | 02200 | - 03000 | | 00750 | 00600 - | 020 | 00250 | - 00300 | 018 | 01000 | - 01200 | 081 | |
| 00000 | 03200 | 0 017 | 03200 | 1 004000 | 00 00 00 00 | 00800 | - 01050 | 010 | 00320 | - 00350 | 028 028 | 01780 | - 01400 | 690 063 | |
| 04000 05000 | - 05000 | 0 053 | 04500 | - 04500 | 049 | 01200 | - 01350 - 01500 | 020 | 00400 | - 00500 | 018 037 | 01600 | - 01800 | 036 018 | |
| 00090 | - 07000 | 0 035 | 02000 | - 06000 | 049 | 01200 | - 01650 | 041 | 00900 | - 00700 | 910 | 02000 | - 02250 | 060 | |
| 07000 | - 09000 | 0 035 | 06000 | - 07000 | 029 108 | 01650 | - 01800 | 020 | 00200 | 00800 - | 047 | 02250 | - 02500 | 036 081 | |
| 10000 | - 15000 | | 08000 | - 15000 | 019 | 02000 | - 02500 | 082 123 | 00900 | - 01000 - 01250 | 018 | 03000 | - 03500 | 036 027 | |
| 25000 | - 40000 | | 15000 | ı | 650 | 0.3000 | - 04000 | 087 | 01250 | - 01500 | 990 | 04000 | - 02000 | 690 | |
| 40000 00000 00000 | 00000 | 0 061 | 20000 | 30000 | 138 | 04000 | 00000 | 123 | 01200 | - 02000 | 150 | 03000 | - 07000 | 180 034 | |
| 80000 - >100000 | - | | 40000 - | 1 000 | 88 | 8 | | 88 | - 00000 | _ | 000 | 09000 - | | 88 | |
| 750 OF | MEASUR. | +00113 | NO OF | MEASUR. | +00100+ | NO OF M | MEASUR. | +0000+ | NO OF | MEASUR. | +00100 | NO OF | MEASUR. | +00110 | |
| MEAN | [X10E-2] | 1 +13756 | MEAN | [X10E-2] | +10235 | MEAN | [X10E-3] | +02658 | MEAN | [X10E-4] | +01338 | MEAN | [X10E-5] | +02293 | |
| SIGHA | [X10E-2] | 1 +14131 | SIOMA | [X10E-2] | +08865 | SIGMA | [X10E-31 | +02226 | SIGNA | (X10E-4) | +01007 | SIGMA | [X10E-5] | +01896 | |
| | | | | | | | | | | | | | | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PARAMETER= VERY LOW GEROSOL CONCENTRATION <5 X 10E-6 G/CU M WANK PEAK 1780 M TABLE: 66

| DI = 0 23 HI | | D2 = 0. 45 MI | | D3 = 0.93 MI | | D4 = 2.00 MI | | D5 = 4, 50 HI | |
|--|--------------------------|---|---------------------------------|---|---------------------------------|---|---------------------------------|---|---------------------------------|
| RES. NR : 297 | | RES. NR. : 298 | | RES. NR.: 299 | | RES. NR. : 300 | | RES. NR. : 301 | |
| PARTICL. CONC. F | FREGUENCY [1/10 X] | PARTICL. CONC. F | FREGNENCY [1/10 X] | PARTICL, CONC. FRE | FREGUENCY (1/10 %) | PARTICL. CONC. F [X10E-4] [| FREGUENCY | PARTICL, CONC. FR [X10E-5] [1] | FREQUENCY 11/10 X1 |
| 00200 00200 00200 - 00400 00400 00500 - 00800 00800 - 01000 | 063 101 119 087 | 00100 00100 - 00200 00200 - 00300 00300 - 00400 00400 - 00500 | 104 094 085 043 | < 00025 00025 - 00050 00050 - 00076 00076 - 00100 00100 - 00150 | 057 075 073 068 120 | 00025 00026 00050 00076 00076 00100 00125 | 108 117 108 083 072 | C 00025 00025 - 00050 00050 - 00076 00076 - 00100 00100 - 00125 | 003 020 023 047 040 |
| 01000 - 01200 01200 - 01400 01400 - 01600 01600 - 01800 01800 - 02000 | 058 045 038 034 | 00500 - 00600 00600 - 00750 00750 - 01000 01000 - 01500 01500 - 02000 | 036 049 053 091 080 | 00150 - 00200 00200 - 00250 00250 - 00300 00300 - 00350 00350 - 00400 | 062 057 053 053 | 00125 - 00150 00150 - 00175 00175 - 00200 00200 - 00250 00250 - 00300 | 070 054 037 066 | 00125 - 00150 00150 - 00175 00178 - 00200 00200 - 00250 00250 - 00300 | 029 042 095 082 |
| 02000 - 02500 02500 - 03000 03000 - 03500 03500 - 04000 04000 - 05000 | 070 058 056 043 | 02000 - 02500 02500 - 03000 03000 - 04000 04000 - 05000 05000 - 07000 | 041 031 040 047 | 00450 - 00450 00450 - 00500 00500 - 00600 00600 - 00700 00700 - 01000 | 028 025 059 028 | 00300 - 00350 00350 - 00400 00400 - 00450 00450 - 00500 00500 - 00600 | 034 027 037 018 | 00300 - 00350 00350 - 00400 00400 - 00450 00450 - 00500 00500 - 00600 | 088 066 036 036 |
| 05000 06000 06000 08000 08000 10000 10000 15000 | 021 034 000 000 | 07000 - 09000 09000 - 12000 12000 - 15000 15000 - 20000 > 20000 | 023 034 018 000 | 01000 - 01500 01500 - 02000 02000 - 03500 03500 - 06000 | 061 025 000 000 | 00600 - 00700 00700 - 01000 01000 - 02000 02000 - 04000 > 04000 | 023 023 025 000 | 00600 - 00700 00700 - 01000 01000 - 02000 02000 - 04000 > 04000 | 060 081 005 005 |
| NO OF PEASOR. MEAN [X10E-2] | +00550 | NO OF MEASUR. MEAN (X10E-2) | +00548 | NO OF PEASUR. HEAN [X10E-3] | +00556 | NO OF HEASUR MEAN (X10E-43 | +00553 | NO OF MEASUR. MEAN [X10E-5] | +00543 |
| SIGMN [X10E-2] | +01889 | SIGMA [X10E-2] | +03-,20 | SIGMA [X10E-3] | +00532 | SIGMA [X10E-4] | +00265 | SIGNA [X10E-5] | +00406 |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

-

WANK PEAK 1780 M TABLE: 67

PARAMETER= AEROSOL CONCENTRATION: 10-15 X 10E-6 G/CBM

| D1 = 0.23 HI | 23 MI | | D2 = 0 | D2 = 0. 45 HI | | | D3 - 0.93 HI | 93 HI | | 04 = 2 | 2. 00 MI | | D5 = 4. 50 HI | . 50 HI | | |
|----------------------------|-------------|-----------------------|------------|----------------------------|----------|---------------------|----------------------------|----------|-----------------------|---------|------------------|-----------|----------------------------------|----------------------------|-----------|-------|
| | 4 93 | | - CP 634 | | , | | 84 | • | | BF8 M0 | 8 | | | . 484 | | |
| | 767 | | | | , | | | | | | | | | | | |
| PARTICL. CONC. [X10E-23 | | FREQUENCY [1/10 X] | PARTIC | PARTICL. CONC. [X10E-2] | <u>u</u> | REGUENCY 1/10 X1 | PARTICL. CONC. [X10E-3] | _ | FREDUENCY (1/10 X) | PARTIC | PARTICL, CONC. F | FREQUENCY | PARTIC | PARTICL. CONC. [X10E-5] | FREQUENCY | Σζ |
| < 00200 | ^ | 890 | ¢ 00100 | | | 103 | < 00025 | | 020 | < 00025 | 025 | 048 | < 00025 | | | 8 |
| - 00200 | _ | 260 | 90100 | 8 | 00200 | 600 | 00025 | - 000030 | 047 | 00025 | - 00020 | 961 | 00025 | - 00020 | | 98 |
| 00400 | 00903 | 96 | 00500 | 88 | 00000 | 7 5 | 00020 | - 00076 | 190 | 9000 | - 60076 | 152 | 00020 | - 00076 | | 013 |
| 00800 | 00010 | 8 8 8 | 2000 | 38 | 00000 | 027 | 90100 | 96199 | <u> </u> | 00100 | - 00125 | | 86 80 80 80 80 80 | - 00100 | | 3 60 |
| - | | į | | | | | | | ; | | | | - | 1 | | |
| 0000 | 01200 | Š | 888 | 88 | 00000 | 700 | 8 8 | - 00200 | 38 | C2100 | 0000 | | 88 | 96.00 | | - C |
| 01400 | 0140 | 5 6 | 00000 | 3 8 | 9000 | 3 5 | 0000 | 00300 | 3 8 | 27100 | 1 00200 | 048 | 8 2 2 | - 00200 | | 3 6 |
| 01600 | 01800 | \$ E3 | 0000 | 6 | 01500 | 90 | 00300 | - 00320 | ₹ 600 | 00200 | - 00250 | | 00200 | - 00220 | | 8 |
| - 00810 | 02000 | 647 | 01200 | 6 | 02000 | 073 | 00320 | - 00400 | 93 | 00220 | - 00300 | 940 | 00220 | - 00300 | | 075 |
| 02000 - | 02200 | 074 | 02000 | - 02 | 0520 | 8 | 00400 | 00430 | 034 | 00300 | - 00320 | 980 | 00300 | - 00320 | | 60 |
| 0520 | 03000 | 180 | 02200 | 8 | 03000 | 3 | 00430 | - 00200 | 013 | 00320 | - 00400 | 013 | 00320 | - 00400 | | 024 |
| 00000 | 03200 | 190 | 03000 | 8 | 04000 | 935 | 00300 | 20303 - | 990 | 00400 | - 00450 | 055 | 00400 | - 00450 | | 93 |
| | | 034 | 04000 | | 02000 | 034 | 00900 | 62700 | 034 | 00420 | - 00200 | 034 | 00450 | 00200 | | 654 |
| 00040 | 0000 | 2 | 0000 | - 07 | 07000 | 930 | 00,00 | 0000 | 3 | 0000 | - 00600 | 6 | 00200 | 00900 - | _ | 99 |
| - 00000 | 00090 | 027 | 07000 | 60 - | 00060 | 948 | 00010 | - 01500 | 122 | 00900 | - 00700 | 027 | 00900 | - 00700 | | 190 |
| 00090 | 00080 | 034 | 00060 | - 12 | 12000 | 98 | 01300 | - 02000 | 027 | 00700 | - 01000 | 690 | 00700 | - 01000 | | 601 |
| 00080 | | 034 | 12000 | - - | 13000 | 034 | 05000 | - 03200 | 040 | 01000 | - 02000 | 020 | 01000 | - 02000 | | 560 |
| 10000 | 15000 | 3 | 15000 | • • | 20000 | 8 | 03200 | 00090 - | 8 | 02000 | - 04000 | 000 | 02000 | 00000 | | 013 |
| 00061 < | | 8 | > 20000 | 8 | | 3 | 00090 < | 90 | 30 | > 04000 | 000 | 000 | 000\$0 ^ | 0 00 | ಕ | 8 |
| NO OF ME | MEASUR. | +00147 | 3 0 | MEASUR | · | -00143 | 90 ON | MEASUR | +00147 | NO 64 | MEASUR. | +00144 | NO OF | MEASUR. | +00146 | |
| MEGN | CX10E-23 | +02120+ | FR | (X10E-2) | | 15620+ | MEAN | [X10E-3] | +00215 | HERM | [X10E-4] | +00220 | HEAN | [X10E-5] | 13 +00495 | 8 |
| SIGHW C | CX10E-23 | +02110 | SIGHA | (X10E-2) | | +03697 | SIGNA | (X10E-3) | +00571 | SIGMA | CX10E-41 | +00264 | SIGHA | (X10E-51 | 11 +00403 | ေ |
| | | | | | | | | | | | | | | | | - |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 68 HANK PEAK 1780 M

PARAMETER= AEROSOL CONCENTRATION: 20-25 X 10E-6 G/CBM

| | | | | | _ | | | | | | | | | |
|---------------------------|------------|---|---------------|----------------------------|-----------------------|----------------------------|----------|-----------------------|----------------------------|------------|-----------------------|---------------|----------------------------|------------|
| 0 - 10 | - 0. 23 HI | | 05 = 0 | 0. 45 MI | | 60 - 60 | 93 MI | | 04 = 2. | 2. 00 HI | | 15 = 4.50 | 30 HI | |
| RES. NR. : | . 497 | | RES NR | | | RES NR | 484 | | RES NR | 200 | | RES. NR. | .: | |
| PARTICL. CONC (X10E-21 | | FREGUENCY | PARTIC CKI | PARTICL. CONC. (110E-2) | FREGJENCY [1/10 X] | PARTICL. CONC. CX10E-33 | | FREQUENCY (1/10 X) | PARTICL. CONC. [X10E-4] | | FREGUENCY [1/10 X] | PARTIC EXI | PARTICL. CONC. [X10E-5] | FREQUENCY |
| < 00200 | | 80 | 00100 > | | _ | < 00025 | | 960 | < 00025 | | 680 | < 00023 | | 8 |
| 00200 | 00400 | 0.00 0.0000 0.000 000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0. | 0000 | 1 00200 | 021 | 00025 | - 00030 | 88 | 00025 | 00030 | 127 | 00023 | 1 00050 | 950 030 |
| 0090 | 00800 | 980 | 00.00 | 00400 | _ | 00076 | 00100 | 640 | 92000 | - | 049 | 92000 | _ | 090 |
| 00800 | - 01000 | 986 | 00400 | - 00300 | 030 | 818 | - 00120 | 898 | 00100 | - 00125 | 107 | 80180 | - 00125 | 8 |
| | - 01200 | 048 | 00200 | 00900 - | 020 | 00130 | - 00200 | 040 | 00125 | - 00120 | 660 | 00125 | - 00150 | 020 |
| 01200 | - 01400 | 98:0 | 00900 | - 00730 | | 00200 | - 00250 | 900 | 00120 | - 00175 | 029 | 00120 | - 00175 | 040 |
| • | - 01600 | 043 | 002200 | 00010 | | 00220 | - 00300 | 049 | 00175 | - 00200 | 038 | 00175 | - 00200 | 030 |
| | | 28 | 0000 | 00110 | | 00000 | 00320 | 800 | 00700 | - 00230 | 890 | 00500 | - 00220 | 111 |
| 00810 | - 02000 | 067 | 01200 | - 02000 | 040 | 00320 | 00400 | 8 | 00220 | - 00300 | 049 | 00520 | 00000 | 101 |
| 02000 | - 02500 | 113 | 02000 | - 02500 | 190 | 00400 | - 00430 | 020 | 0000 | - 00320 | 029 | 0000 | - 00320 | 090 |
| 02200 | - 03000 | 125 | 02200 | - 03000 | 198 | 00420 | - 00300 | 029 | 00320 | - 00400 | 610 | 00320 | - 00400 | 060 |
| 03000 | - 03200 | 057 | 03000 | - 04000 | | 00200 | 00900 - | 029 | 00400 | - 00450 | 029 | 00400 | - 00450 | 080 |
| 03200 | - 04000 | 067 | 04000 | 93000 | • | - 00900 | - 00200 | 80 | 00420 | 00200 | 8/0 | 00420 | - 00200 | 020 |
| 0400 | - 03000 | 610 | 02000 | - 02000 | 102 | 00200 | 00010 | 137 | 00200 | 00900 - | 610 | 00200 | 00900 - | 111 |
| 02000 | 00090 - | 067 | 0000 | - 09000 | 050 | 01000 | 01300 | 890 | 00900 | - 00200 | 039 | 00900 | - 00700 | 090 |
| 00090 | - 08000 | 610 | 00060 | - 12000 | - | 01200 | - 02000 | 890 | 00200 | 00010 | 039 | 00200 | - 01000 | 030 |
| 00000 | - 10000 | 610 | 12000 | 13000 | 88 | 05000 | - 03300 | 078 | 01000 | - 02000 | 058 | 01000 | - 02000 | 111 |
| 10000 | - 15000 | 8 | 13000 | - 20000 | 8 | 03200 | 00090 - | 8 | 02000 | - 04000 | 8 | 02000 | - 04000 | 8 |
| > 15000 | 8 | 8 | > 20000 | 000 | 000 | 00090 < | 8 | 8 | > 04000 | 900 | 000 | > 04000 | 000 | 8 |
| NO OF MEASUR. | EASUR. | +00100+ | 70 OF | NO OF MEASUR. | 86000+ | N OF 18 | HEASUR | +00102 | NO OF | MEASUR | +00102 | 10 OX | NO OF MEASUR. | 66000+ |
| TERM | [X10E-2] | 102410 | FER | (X10E-2) | 14550+ | HEAN | (X10E-3) | +00659 | MEAN | [X10E-4] | +00293 | HEAN | [X10E-5] | +00463 |
| SIGMA | [X10E-2] | +01830 | SIGHA | (X10E-2) | +03750 | SIGNA | CK10E-33 | +00749 | SIGMA | [X10E-4] | +00352 | SIGHA | (X10E-5) | +00398 |

TABLE: 69 W

WANK PEAK 1780 M

PERIOD: 1970-1980

PARAMETER# AEROSOL CONCENTRATION: 30-40 X 10E-6 G/CBM

| | | | | | | | i | | | | | | |
|------------------|-----------|--|----------------------------|-----------------------|---------------|----------------|-----------------------|----------------------------|----------|-----------|----------------------------|------------|-----------------------|
| | | | | | | | | | | | | | |
| D1 = 0.23 HI | | 20 | • 0. 45 HI | | EG = 0 93 | Ĕ | | DA = 2 | 2.00 MI | | 8 • | - 4. 50 MI | |
| RES. NR. : 502 | | RES. NR. | 303 | | RES. NR : | 5 00 | | RES NR | | | RES. NR. : | 206 | |
| PARTICL. CONC. F | FREQUENCY | PARTIC | PARTICL. CONC. [KIOE-2] | FREGUENCY [1/10 X] | PARTICL. CONC | | FREGUENCY (1/10 X) | PARTICL. CONC. [X10E-4] | | FREQUENCY | PARTICL. CONC. (X10E-5) | | FREGUENCY [1/10 X] |
| 0200 | 999 | 00100 > | | | C 00025 | | 029 | < 00025 | _ | 101 | < 00025 | | 000 |
| 00200 - 00400 | <u> </u> | 80 20 20 20 20 20 20 20 20 20 20 20 20 20 | - 90200 | 200 | 00023 | 00030 00076 | 2 % | 0005 | - 00030 | 0.00 | 00023 | - 00050 | 0 0 0 0 |
| • | 960 | 00300 | 00400 | | - 92000 | 00100 | 022 | 9000 | - 00100 | 043 | 9000 | 8000 | <u>8</u> |
| 00800 - 01000 | 074 | 80400 00400 | - 00300 | 037 | - 00100 | 00120 | 074 | 00100 | - 00125 | 960 | 00100 | - 00125 | 030 |
| ı | 180 | 00200 | 00900 | | - 00120 | 00700 | 88 | 00125 | - 00150 | 028 | 00125 | - 00150 | 015 |
| ı | 029 | 909 | 00730 | | - 00200 | 00220 | 029 | 00120 | - 00175 | 043 | 00120 | - 00175 | 030 |
| | 10 | 06/20 | 00010 | | 00220 | 00000 | 037 | 00175 | - 00200 | 043 | 00173 | - 00200 | 043 |
| ı | 044 | 00010 | 00210 - | | 00300 | 00320 | 7 | 00500 | - 00220 | 980 | 00200 | - 00250 | 160 |
| 00020 - 00810 | 077 | 0000 | - 05000 | 083 | 003300 | 00400 | 8 | 00220 | 00000 - | 021 | 00220 | - 00300 | 043 |
| 1 | 037 | 02000 | - 02200 | | - 00400 | 00430 | 10 | 00300 | - 00320 | 88 | 00000 | - 00320 | 083 |
| ı | 8 | 02300 | 03000 | | 00420 | 00200 | 027 | 00320 | - 00400 | 8 | 00320 | - 00400 | 022 |
| ı | 074 | 93000 | 94000 | | - 00200 | 00900 | - 200 | 00400 | - 00430 | 014 | 00400 | - 00430 | 645 |
| 1 | 4 | 04000 | 00000 | | 00900 | 000 | 029 | 00430 | 00200 | 200 | 00430 | 00300 | 50 |
| 00000 - 00000 | ĝ | 3 | 900/0 - | 7/0 | - 00/00 | 00010 | 126 | 0000 | 00900 - | 6/0 | 00000 | 00900 | 160 |
| ı | 037 | 0000 | 00060 - | | - 00010 | 01200 | 8 | 00900 | - 00700 | 22 | 00900 | - 00700 | 933 |
| ı | 4 | 0006 | - 12000 | | - 200 | 05000 | 260 | 00700 | - 01000 | 590 | 00200 | - 01000 | |
| ı | 5 | 12000 | 13000 | | 05000 | 03200 | | 00010 | - 02000 | 8 | 00010 | - 02000 | 137 |
| 10000 - 12000 | 8 | 12000 | | | 03200 | 0000 | 8 | 05000 | - 04000 | 8 | 03000 | | • |
| 00051 < | 8 | 20000 - - | 000 | 8 | 00090 < | | 8 | 00000 | 9 | 8 | > 04000 | 8 | 8 |
| NO OF MEASUR. | +00135 | 75 05 76 | NO OF MEABUR. | +600134 | NO OF MEASUR | | +00134 | NO OF | MEASUR | +00138 | NO OF H | MEASUR. | +00131 |
| MEAN [X10E-2] | +02416 | HEAN | (X10E-2) | +02927 | MEAN CX | (X10E-3) +(| 12200+ | MEDA | [X10E-43 | +00387 | MEAN | [X10E-5] | +00536 |
| SIGNA CX10E-23 | +02289 | STOTA | (X10E-21 | +03502 | SIGMA (KI | (K10E-3) +C | 100863 | SIGHA | [X10E-4] | +00445 | SIGMA | [X10E-53 | 100439 |
| Lymnia | | | | 7 | | | | | | | | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 70 HANK PEAK 1780 M

PARAMETER= VERY HIGH AEROSOL CONCENTRATION >50 X 10E-6 G/CU M

| 01 = 0.23 | Ĭ | | D2 - 0 | D2 = 0. 45 HI | | 0 = 60 | 0 93 HI | | 04 = 2 | 2. 00 HI | | DS = 4. 50 ME | . 50 HI | | |
|--------------------------|----------|------------|---------------------------|----------------------------|-----------------------|---|----------|-------------------------|----------------------------|-------------------------|-----------------------|----------------------------|----------|------------|-------------|
| RES. NR. : | 157 | | RES NR : | .: 2 | | RES NR | 621 | | RES NR | . 160 | | RES. NR. : | 191 : | | |
| PARTICL CONC [X10E-2] | | FREGUENCY | PART IC | PARTICL. CONC. [X10E-2] | FREQUENCY [1/10 X] | PARTICL CONC (X10E-31 | | FREGUENCY (1/10 x) | PARTICL. CONC. CX10E-41 | | FREGUENCY (1/10 X1 | PARTICL. CONC. (X10E-5) | | FREGUENCY | |
| < 00200 | | 290 | 00100 C 00100 | 901 | 162 | ○ 00052 | 57 | 129 | € 00025 | 25 | 112 | < 00025 | 025 | 025 | |
| ł | 00400 | 062 | 00100 | - 00500 | | 00025 | | 91.1 | 00025 | | 187 | 00025 | - 000050 | 012 | _ |
| ı | 00900 | 523 | 00200 | 00300 | | 00020 | - 00076 | 0.38 | 00000 | - 000076 | 780 | 000020 | - 00076 | 037 | |
| 00800 | 01000 | 062 075 | 8 9 9 9 9 9 9 9 9 9 | 0000 | 020 | 9000 0000 0000 | 00100 | - 0 0 0 0 0 | 9000 90100 | 00 52 00 53 00 53 | <u>2</u> 8 | 9003e 00100 | - 00100 | 690 088 | |
| 1 00000 | 01200 | Ş | | 9 | | 5 | | 8 | | 2000 | | 1 | 8 | | |
| • | 01400 | 020 | 8090 | - 00750 | 000 | 00700 | - 00230 | 012 | 8 8 8 | 82128 | 037 | 200 | 8228 | 020 | _ |
| , | 01600 | 062 | 00750 | - 01000 | | 00220 | - 00300 | Ē | 00175 | - 00200 | 012 | 00175 | - 00200 | 037 | |
| ı | 000 | 025 | 01000 | - 01300 | | 00300 | - 60330 | 012 | 00200 | - 00220 | 037 | 00200 | - 00250 | 690 | _ |
| 01800 | 05000 | 8 | 01200 | - 02000 | 023 | 90330 | - 00400 | 012 | 00220 | - 00300 | 037 | 00220 | - 00300 | 037 | |
| 1 | 02500 | 075 | 07000 | - 02200 | 062 | 00400 | - 00430 | 012 | 00:00 | - 00320 | 025 | 00000 | - 00320 | 075 | _ |
| , | 03000 | 062 | 02200 | - 03000 | 025 | 00430 | - 00200 | 8 | 00.350 | - 00400 | 8 | 00320 | - 00400 | 012 | _ |
| i | 03200 | 037 | 03000 | 04000 | | 00200 | 00900 - | 077 | 00400 | - 00450 | 012 | 00400 | - 00450 | 037 | _ |
| ı | 04000 | 025 | 04000 | 00000 | • | 00900 | 00200 | 8 | 00450 | - 00200 | 012 | 00430 | - 00500 | 020 | - |
| - 000160 | 00000 | 062 | 0000 | - 07000 | 112 | 86 86 86 86 86 86 86 86 86 86 86 86 86 8 | 00010 - | 911 | 0000 0000 | - 00000 | 020 | 00300 | 00900 - | 690 | _ |
| - 00000 | 00090 | 0.62 | 00000 | 00060 | 790 | 00010 | - 01500 | 116 | 00900 | - 00700 | 025 | 00900 | - 00200 | 500 | _ |
| 1 | 09080 | 012 | 00060 | - 12000 | | 01300 | 05000 | 990 | 00700 | 00010 | 075 | 00200 | 00010 | 183 | _ |
| 00080 | 10000 | 037 | 12000 | 15000 | 025 | 02000 | - 03500 | 150 | 00010 | - 02000 | 112 | 01000 | - 05000 | 113 | _ |
| - 00001 | 13000 | 000 | 2000 | - 20000 | 000 000 | 03200 | 00090 - | 8 | 00020 | - 04000 | 8 | 02000 | 1 04000 | 8 | _ |
| > 15000 | | Ş | > 2000 | 000 | 8 | 00090 < | 000 | 3 | 00000 < | 9 | 8 | > 04000 | 000 | 8 | - |
| NO OF MEASUR | ≅ | 08000+ | MO 04 | HEASIR | +0000 | \$0 Q4 | MEASUR | +00001 | NO OF | HEASIR. | 08000+ | NO.0F | MEASUR. | +0000+ | |
| MEAN CXI | CX10E-23 | +02134 | MEAN | (X10E-2) | +02486 | MEAN | [X10E-3] | 60900+ | MEAN | [X10E-4] | +00346 | MEAN | [X10E-5] | +00510 | |
| SIGMA LXI | [X10E-2] | +02070 | SIGNA | [X10E-2] | +03184 | SIGM | [X10E-3] | +00732 | SIGHA | [X10E-4] | +00470 | STOMA | (X10E-5) | +00464 | |
| | | | | | | | | - - - | | | | | | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

ZUGSPITZE PEAK 3000 M TABLE: 71

| I |
|------------------|
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| 10E-6 G/CU M |
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| DI = 0. 23 HI | | 05 = 0 | - 0.45 M | | D3 • | 0 93 MI | | 04 = 2. | = 2.00 MI | | B3 ← 30 | 1H 05 | |
|---|--------------------------|--|--|--------------------------|---|--|--------------------------|--|--|--------------------------|---|---|---------------------------------|
| RES. NR. : 302 | | RES NA | 303 | | RES NA | 304 | | RES NR | 302 | | RES. NR. | 306 | |
| PARTICL. CONC. FR | FREGUENCY | PARTIC [X] | PARTICL. CONC. F | FREGUENCY (1/10 %) | PARTICL. CONC (X10E-31 | | FREQUENCY [1/10 X] | PARTICL CONC. (X10E-43 | | FREQUENCY | PARTICL. CONC. EXIOE-53 | | FREQUENCY |
| < 00050 00050 - 00100 00100 - 00130 | 028 072 065 | 00013 - 000030 - 0000030 - 000030 - 000030 - 000030 - 000030 - 000030 - 000030 - 0000030 - 000030 - 000030 - 000030 - 000030 - 000030 - 000030 - 0000030 - 00000000 | 015 00030 | 030 | < 00015 00015 - 00030 - | 015 - 00030 - 00045 | 037 | - 00013 |)15 - 00030 - 00045 | 148 | 000250002500050 |)25 - 00050 - 00076 | 011 012 053 |
| 1 1 | 2.2 | 0000 | - 00060 | | 00043 | - 00060 | 38 | 00043 | - 000075 | 092 | 00076 | - 00100 | 042 |
| 00250 - 00300 00300 - 00350 00350 - 00400 00400 - 00500 00500 - 00600 | 036 047 059 039 | 00073 00090 00103 00120 00130 | - 00090 - 00103 - 00120 - 00130 | 039 039 053 | 00075 00090 00105 00120 | 00090 00103 00130 - 00200 | 055 068 073 073 | 00075 00090 00105 00120 | - 00090 - 00103 - 00130 - 00130 | 058 062 041 069 | 00125 00150 00175 00220 | - 00150 - 00175 - 00200 - 00225 | 040 062 031 062 047 |
| 00800 - 00800 00800 - 01000 01000 - 01250 01250 - 01500 01500 - 02000 | 097 054 047 | 00200 00250 00300 00400 | - 00250 - 00300 - 00400 - 00600 | 055 056 076 056 | 00200 00250 00300 00400 | 00250 | 94 94 973 973 | 00200 00250 00300 00400 | - 00250 - 00300 - 00400 - 00600 | 046 037 028 028 | 00250 00275 00300 00325 0035 | - 00275 - 00300 - 00325 - 00350 - 00400 | 042 053 053 068 |
| 02000 - 03000 03000 - 04000 04000 - 06000 06000 - 12000 > 12000 | 074 036 019 000 | 00900 - 01500 - 02500 - 050000 - 050000 - 050000 - 050000 - 050000 - 05000 - 05000 - 05000 - 0 | - 01500 - 02500 - 05000 - 10000 | 062 003 000 | 00900 - 01500 - 02500 - 05000 - 05000 - 05000 - 05000 - 05000 - 05000 | - 01500 - 02500 - 05000 - 10000 | 000 000 | 00900 - 01500 - 02500 - 05000 - | - 01500 - 02500 - 05000 - 10000 | 021 000 000 000 | 00400 - 00500 - 00750 - 01000 - | - 00500 - 00750 - 01000 - 02000 | 114 128 036 038 000 |
| NO OF MEASUR. MEAN (X10E-2) | +00553 | NO OF | NO OF MEASUR. MEAN [X10E-2] | +00223 | NO OF T | MEASUR [X10E-3] | +00558 | NO OF P | MEASUR. [K10E-4] | +00560 | ND OF H | MEASUR. [X10E-5] | +00543 |
| SIGHA [X10E-2] | +01451 | SIGHA | [X10E-2] | -01097 | SIGNA | [X10E-3] | +00452 | SIONA | [K10E-4] | +00328 | SIGMA | [X10E-5] | +00253 |

FREGÜENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

The state of the s

GARMISCH (VALLEY 740 H) PARAMETER VISIBILITY RANDE <1 KM

TABLE: 72

| D1 = 0.2 | ■ 0.23 MI | | 0 = 0 | 45 H | | 6 | 0 93 MI | | D4 = 2 | 2. 00 MI | | DS = 4, 50 HI | 30 HI | |
|---------------------------|-----------|-----------------------|--------------------------|--------------|-----------------------|----------------|--------------------------|-----------|---------------|------------------------------|-----------------------|----------------------------|----------|-----------------------|
| RES. NR. : | 322 | | RES MR. | 323 | | RES NR | 324 | | RES NR | 1.: 325 | | RES. NR. | 326 | |
| PARTICL CONC. [X10E-2] | | FREGUENCY [1/10 X] | PARTICL CONC [H10E-2] | | FREGLENCY [1/10 X] | PARTIC | PARTICL CONC [X10E-3] | FREGIENCY | PARTIC CXI | PARTICL, CONC. F [X10E-4] | FREQUENCY (1/10 X) | PARTICL. CONC. (X10E-5) | | FREGUENCY [1/10 %] |
| 00 2 00 > | | 242 | 00200 > | 906 | 121 | 00130 00130 | 961 | 8 | 000020 | 020 | 201 | C 00200 | 8 | 028 |
| 00200 | 000 | 660 | 00200 | 0000 - | | 00 30 | - 00300 | | 00020 | _ | 163 | 00200 | - 00400 | 113 |
| 00000 | 01200 | 121 | 0000 | 00020 | 705 | 0000 | 00400 | 040 | 88 | - 00150 | 182 | 00400 | 00900 - | 113 |
| 05000 | 02500 | 9 | 02000 | - 02200 | | 00900 | - 00750 | | 00200 | - 00250 | 105 | 00800 | 00010 | 751 |
| 02500 - | 03000 | 112 | 02200 | 03000 | 590 | 00730 | - 00900 | 037 | 000350 | 000000 | 88.0 | 2 | 00010 | 770 |
| 03000 | 03200 | 940 | 03000 | - 03200 | | 00600 | 05010 | | 00300 | - 00320 | | 00210 | - 01400 | 980 |
| 03200 | 04000 | 028 | 03200 | - 04000 | | 00000 | - 01200 | | 00320 | - 00400 | 028 | 01400 | - 01600 | 075 |
| 04000 | 02000 | 037 | 0000 | - 94500 | | 01700 | - 01350 | | 00400 | - 00300 | 048 | 00910 | 00810 - | 037 |
| - 02000 | 00090 | 03/ | 005 To | 02000 | 029 | 01 320 | - 01300 | 020 | 00200 | 00900 - | 610 | 01800 | - 02000 | 600 |
| - 00090 | 00020 | 8 | 02000 | - 06000 | | 00510 | - 01650 | 810 | 00900 | - 00700 | 028 | 02000 | - 02250 | 037 |
| 02000 | 00060 | 8 | 00090 | - 07000 | | 01650 | - 01800 | | 00700 | 00800 | 610 | 02250 | - 02500 | 600 |
| 00000 | 0000 | 38 | 02000 | 00000 | | 00010 | - 02000 | • | 00800 | 90600 - | 000 | 02200 | - 03000 | 028 |
| | 0000 | 38 | 0000 | 0000 | | 05000 | - 02500 | | 00600 | - 01000 | 8 | 03000 | - 03200 | 018 |
| 2005 | 2005 | } | 3 | | 8 | 000.30 | 00000 - | ŝ | 000 | - 01250 | 8 | 03200 | - 0400 | 8 |
| 25000 - | 40000 | 870 | 12000 | - 20000 | | 03000 | - 04000 | | 01250 | - 01500 | 600 | 04000 | - 05000 | 8 |
| 0000 | 9000 | 88 | 20000 | 30000 | | 04000 | 05090 | 8 | 00210 | - 02000 | 028 | 02000 | - 02000 | 990 |
| | | 38 | 200 | - | | 00000 | 0000 | 8 | 05000 | - 03000 | 606 | 00020 | - 09000 | 000 |
| 5 | | 3 8 | - 0000 | 0000 - 33 | 88 | 0000 | 20000 | 8 | 03000 | 00090 - | 8 | 00060 | - 12000 | 000 |
| | | 3 | Ř ` | 3 | 3 | 7,0000 | 9 | 8 | 00090 < | 000 | 8 | > 12000 | 8 | 8 |
| NO OF MEASUR. | NSUR. | +00107 | NO 04 | FEASIR | 10100+ | NO UF | MEASUR | +00100+ | NO 05 | MEASUR | +00100+ | NO OF H | HEASUR. | +00100 |
| MEAN CX | [X10E-2] | +02344 | YEAN | [X10E-2] | 1 +02677 | HEAN | (X10E-3) | +60667 | F | (X10E-4) | +00259 | HEAN | (X10E-5) | +01373 |
| SIGMA CX | (X10E-21 | +04419 | STOPPA | [X10E-2] | 1 +02 557 | SIONA | (X10E-33 | +01005 | SIGMA | (X10E-4) | +00384 | STOMA | [X10E-5] | +01357 |
| | | | | | | ! ! ! | | | | | | | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

GARMISCH (VALLEY 740 M) TABLE: 73

PERIOD : 1975-1980

| RES. NR. : 327 PARTICL. CONC. FREQUENCY [X10E-2] [1/10 X] < 00500 048 00500 - 01000 048 01500 - 01500 048 01500 - 02000 073 | RES. NR : 32 PARTICL. CONC. (X10E-21 < 00500 - 01 01000 - 01 | | FREQUENCY [1/10 X] | | E 6 | | D4 = 2. | F | | 8 | 4. 50 MI | |
|---|--|----------|-----------------------|--------------------------|----------|-----------------------|----------------------------|----------|-----------------------|----------|----------------------------|-----------------------|
| R.: 327 CL. CONC. 10E-21 0300 - 01000 - 02000 | PARTICL [X10 C 005 00500 | | FEBRENCY /10 X3 | | | | | | | | | |
| CL. CONC. 10E-21 0500 - 01000 - 02000 | PARTICL [KI10 (005 000500 | | FOUENCY /10 X3 | RES NR | 329 | | RES NR. | 330 | | RES. NR. | 331 | |
| 00000 - 01000 - 01500 | 00300 01000 | | - | PARTICL CONC (X10E-3) | | FREGUENCY [1/10 X] | PARTICL. CONC. (X10E-41 | | FREGUENCY [1/10 X] | PARTIC | PARTICL, CONC. EX10E-51 | FREGUENCY [1/10 %] |
| 01000 | | | 2 | 06100 > | 8 | 3 | 0£000 > | S. | 0.37 | < 00200 | 200 | 000 |
| - 02000 | | | 970 | | - 00300 | 88 | 00020 | | 101 | 00500 | - 00400 | |
| 00000 | | | 026 | 00.00 | - 00430 | 123 | 00100 | - 00120 | 088 | 00400 | - 00900 | |
| ŀ | 05000 | 03000 | 063 | 0000 | - 00600 | 068 027 | 00700 | - 00200 | 063 075 | 00900 | 00800 - | 083 069 |
| 02500 - 03000 036 | 02200 | | 040 | 00750 | 00600 | Ş | 9 | 00000 | | 2 | 0000 | 78 |
| - 03200 | 03000 | - 03500 | 8 | | | 3 | 00300 | - 00320 | 025 | 01200 | _ | |
| 04000 | 03200 | - 04000 | 026 | 01050 | - 01200 | 013 | 00320 | - 00400 | 690 | 01400 | 00910 - | |
| 02000 | 0000 | 04300 | 3 | | - 01320 | 610 | 00400 | - 00500 | 050 | 01600 | - 01800 | 053 |
| 580 00090 - 00050 | 04100 | - 02000 | 970 | 01330 | - 01300 | 8 | 00200 | 00900 - | 063 | 01800 | - 02000 | 140 |
| 1 | 02000 | 00090 - | 83 | 01300 | - 01630 | \$ | 00900 | - 00700 | 030 | 02000 | - 02250 | 041 |
| 00000 - | 00090 | - 02000 | 990 | | 001400 | 950 | 00200 | - 00800 | 020 | 02250 | - 02500 | Ī |
| 0000 | 0000 | 00000 | ŝ | 0000 | - 05000 | 027 | 00000 | 00000 | 012 | 02200 | - 03000 | 125 |
| - 12000 | 00000 | 0000 | 98 | | - 02200 | \$60 | 00600 | 00010 - | 025 | 03000 | - 03200 | 690 |
| 15000 - 25000 085 | 0000 | - 13000 | 133 | 0520 | 0.3000 | 780 | 00010 | - 01250 | 690 | 03200 | - 04000 | 041 |
| 25000 - 40000 036 | 2000 | - 20000 | 8 | 03000 | - 04000 | 8 | 01250 | 01500 | 0.23 | 04000 | 00000 | 190 |
| 40000 - 60000 024 | 20000 | - 30000 | 833 | 04000 | 00090 | 890 | 01200 | Ī | | 0000 | | |
| 1 | 30000 | - 40000 | 970 | 00090 | - 10000 | 8 | 05000 | - 03000 | 073 | 02000 | 00060 - | 0.00 |
| 000 000001 - 00008 | 40000 | 20000 | 8 | 00001 | - 20000 | 8 | 0000 | 00090 | 050 | 00060 | 12000 | 8 |
| >100000 0000 | > 50000 | _ | 88 | > 20000 | | 8 | 00090 < | | 8 | > 12000 | | 8 |
| NO OF MEASUR. +00082 | NO OF HEASUR | EASUR | +00075 | NO OF H | MEASIR | +00073 | NO OF R | MEASUR | €2000+ | NO OF | NO OF MEASUR. | +00072 |
| MEAN [X10E-2] +07524 | HEAN | (x10E-2) | +09448 | MEAN | (K10E-3) | +02151 | MEAN | [X10E-4] | 90800+ | HEAN | [X10E-5] | +02690 |
| SIGMA [X10E-2] +08676 | STOPP | (X10E-2) | +07816 | SIGMA | (K10E-3) | +02310 | SIONA | [X10E-4] | +00916 | STOMA | (X10E-5) | +02025 |
| | | | | | | | | | | | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

GARMISCH (VALLEY 740 M) TABLE: 74

PARAMETER VISIBILITY RANGE >40 KM

| D1 = 0. 23 MI | | D2 = 0.45 MI | 45 MI | | D3 = 0 93 HE | | B4 ≈ 2.00 HI | | D5 = 4, 50 MI | 50 MI | |
|---|-------------------------------------|---|---|---------------------------------|---|---|---|---------------------------------|--|--|----------------------------|
| RES. NR. : 277 | | RES. NR. : | . 278 | | RES. NR : 279 | | RES. NR. : 290 | | RES. NR. : | 281 | |
| PARTICL. CONC. (X10E-2) | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-23] | | FREGUENCY | PARTICL CONC [X10E-3] | FREQUENCY [1/10 %] | PARTICL, CONC. F | FREQUENCY | PARTICL. CONC. [X10E-5] | | FREGUENCY [1/10 %] |
| <pre></pre> | 267 163 161 0 084 0 056 | 00500 00500 01000 01500 | 500 - 01000 - 01500 - 02500 - 02500 | 215 277 104 118 | < 00150 00150 - 00300 00300 - 00450 00450 - 00600 00600 - 00750 | 00 279 50 279 50 076 50 104 | 00050 00050 - 00100 00100 - 00150 00150 - 00200 00200 - 00250 | 107 064 092 042 | < 0020000200004000060000800 | 00 - 00400 - 00600 - 00800 | 007 037 074 089 |
| 02500 - 03000 03000 - 03500 03500 - 04000 04000 - 05000 05000 - 06000 | 063 007 007 | 02500 03000 04000 04500 | 03000 | 069 020 013 013 | 00750 - 00900 00900 - 01050 01050 - 01200 01200 - 01350 01350 - 01500 | 000 000 000 000 001 000 000 000 | 00250 - 00300 00300 - 00350 00350 - 00400 00400 - 00500 00500 - 00500 | 057 035 085 128 071 | 01200 01200 01400 01600 | 01200 01400 01600 01800 | 104 052 067 044 |
| 06000 - 07000 07000 - 08000 08000 - 10000 10000 - 15000 15000 - 25000 | 000 | 05000 06000 07000 06000 | - 06000 - 07000 - 10000 - 15000 | 013 027 006 013 006 | 01500 - 01650 01650 - 01800 01800 - 02000 02000 - 02500 | 950 900 900 900 900 900 900 900 900 | 00600 - 00700 00700 - 00800 00800 - 00900 00900 - 01000 | 035 021 042 021 029 | 02000 02250 02500 03000 03500 | - 02250 - 02500 - 03500 - 03500 | 029 052 052 022 |
| 25000 - 40000 40000 - 60000 60000 - 80000 80000 - 100000 | 88888 | 15000 - 20000 - 30000 - 40000 - > 50000 | - 20000 - 30000 - 40000 - 50000 | 000 000 000 000 | 03000 - 04000 04000 - 06000 06000 - 10000 10000 - 20000 > 20000 | 60 60 60 60 60 60 60 60 60 60 60 60 60 6 | 01250 - 01500 01500 - 02000 02000 - 03000 03000 - 06000 > 06000 | 028 028 028 014 | 04000 - 05000 - 07000 - 09000 - 09000 - 09000 - 09000 - 09000 - 09000 - 09000 - 09000 - 09000 - 09000 - 09000 - 09000 - 09000 - 0900000 - 090000 - 090000 - 0900000 - 0900000 - 0900000 - 0900000 - 090000000 - 09000000 - 090000000 - 0900000000 | 05000 07000 07000 12000 | 023 067 000 000 |
| NO OF MEASUR. MEAN (X10E-21 S1GMA (X10E-22) | +00142 1 +02017 1 +02469 | NO OF PEASUR PEAN (XIOE SIGMA (XIOE | FEASUR. [X10E-2] [X10E-2] | +00144 | NO OF MEASUR. MEAN (XIOE-3) SIGMA (XIOE-3) | +00143 -31 +00688 -31 +01278 | NO OF MEASUR. MEAN [X10E-4] SIGMA [X10E-4] | +00140 | NO OF MEASUR MEAN [X106 SIGMA [X106 | EASUR. [X10E-5] [X10E-5] | +00134 +02097 +01780 |
| | | | | , | | | | | | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PERIOD: 1975-1980

PARAMETER= VISIBILITY RANGE <1 KM

TABLE: 75

WANK PEAK 1780 M

| DI = 0.23 MI | | . D2 • 0 | - 0. 45 HE | | 03 = 0.93 | 3 # [| | D4 = 2. | 2. 00 HI | | 05 = 4. 50 | 50 HI | |
|--------------------------|---------------------------------|----------------|------------------------------|-----------|----------------------------|--|-----------------------|----------------------------|----------|-----------------------|----------------------------|----------|-----------------------|
| RES. W. : 332 | | RES. NR. | t. : 333 | | RES. NR. : | 334 | | RES. NR. | 332 | | RES. NR. : | 336 | |
| PARTICL. CONC. F | FREGUENCY [1/10 x] | PARTIC CX1 | PARTICL. CONC. 1 [X10E-2] | FREGUENCY | PARTICL. CONC. [X10E-3] | | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-4] | | FREGUENCY [1/10 X] | PARTICL. CONC. [X10E-5] | | FREGNENCY [1/10 %] |
| < 00200 00200 - 00400 | 85 | × 00100 | 100 | 191 | \$ 00025 | 5 | 115 | < 00025 00025 | 25 | 153 | < 00025 00034 - | 25 | 700 |
| 1 (| 108 | 00200 | 00300 | | | 00076 | 690 | | | 138 | 00020 | | 200 |
| ı | 093 | 00400 | - 00200 | 023 | - 00100 | 06100 | 184 | 00100 | - 00125 | 107 | 00100 | - 00125 | 620 |
| ŧ | 8 | 00200 | - 00900 | | - 02100 | 00200 | 690 | 00125 | - 00150 | 190 | 00125 | - 00120 | 031 |
| 01200 - 01400 | 936 038 | 00900 00200 | - 00750 | 690 | 00200 | 00220 | 053 | 00150 | - 00175 | 940 | 00150 | - 00175 | 047 |
| ł | 054 | 0000 | - 01200 | | 00000 | 00320 | 030 | 00700 | - 00250 | 033 | 00200 | - 00250 | 071 |
| 01800 - 02000 | 160 | 01200 | - 02000 | 046 | - 09200 | 00400 | 610 | 00250 | - 00300 | 0E9 | 00220 | - 00300 | 690 |
| , | 924 | 02000 | - 02200 | | - 00400 | 00420 | 023 | 00000 | - 00320 | 030 | 00300 | - 00320 | 111 |
| 02500 - 03000 | \$ 60 \$ | 02300 | 0000 | 053 | 00430 | 00200 | 030 | 00320 | - 00400 | 88 | 00320 | - 00400 | 063 |
| ı | 03.5 | 9000 | 3000 | | 00900 | 867 807 807 807 807 807 807 807 807 807 80 | 023 | 00450 | 00200 | 88 | 900 | 00200 | 932 |
| 04000 - 05000 | 673 | 02000 | - 07000 | 013 | - 00200 | 01000 | 038 | 00200 | 00900 - | 030 | 00200 | - 00600 | 031 |
| 1 | 940 | 00000 | - 09000 | 015 | - 00010 | 01200 | 200 | 00900 | - 00700 | 200 | 00900 | - 00200 | . 023 |
| 00000 - 00000 | 000 000 000 000 000 | 2000 | 12000 | 88 | 01200 | 02000 | 000 | 00200 | 01000 | 015 | 00200 | - 01000 | 031 |
| 1 | 000 | 2000 | - 20000 | 8 | | 0090 | 38 | 00000 | - 04000 | 38 | 02000 | - 04000 | 000 |
| > 15000 | 000 | > 20000 | 000 | 8 | 00090 < | | 9 | > 04000 | | 000 | > 04000 | | 000 |
| NO OF MEASUR. | +00129 | ₹ 5 | NO OF MEASUR. | 06100+ | NO OF MEA | HEASUR | +00130 | NO OF MEASUR | EASIR. | +00130 | NO OF | MEASUR. | +00126 |
| MEAN [X10E-2] | +01670 | HEAN | (X10E-2) | +01374 | MEAN CO | [X10E-3] | +00290 | MERN | (X10E-4] | 10100+ | MEAN | (X10E-51 | +00302 |
| SIGHA EXIDE-21 | 18910+ | SIGHA | [X10E-2] | +02027 | STOPHA C) | (X10E-31 | +00204 | STOPIA | [X10E4] | +002003 | SIGHA | [X10E-5] | +00312 |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

THE RESERVE OF THE PERSON OF T

TABLE: 76 WANK PEAK 1780 M PARAMETER VISIBILITY RANGE 2-7 KM

| D1 = 0.23 HI | | D2 = 0 | D2 = 0. 45 HI | | D3 = 0.93 HI | | D4 = 2.00 HI | | DS = 4. | 4. 50 MI | |
|---|--|---|---|--------------------------|--|--|---|---|---|---|---------------------------------|
| RES. NR : 337 | | RES. NR. | t : 338 | | RES NR : 339 | ø. | RES. NR. : 340 | | RES. NR. : | : 341 | |
| PARTICL. CONC. [X10E-2] | FREQUENCY | PARTIC EX1 | PARTICL. CONC. [X10E-2] | FREGUENCY [1/10 X] | PARTICL. CONC. (X10E-3) | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-4] | FREGUENCY [1/10 %] | PARTICL. CONC. [X10E-51 | _ | FREQUENCY [1/10 %] |
| C 00200 00200 - 00400 00400 - 00600 00600 - 00800 | 000 000 000 000 000 000 000 133 | 0010000100002000030000400 | 100 - 00200 - 00300 - 00400 - 00500 | 073 097 097 024 | <pre></pre> | 00050 139 00076 046 00100 069 | 00025 00025 - 00050 00050 - 60076 00076 - 00100 00100 - 00125 | 227 181 0 068 0 045 | C 00025 00025 - 00050 - 00076 - 00100 - |)25 - 00050 - 60076 - 00100 - 00125 | 000 022 113 045 |
| 01000 - 01200 01200 - 01400 01400 - 01600 01600 - 01800 01800 - 02000 | 000 000 000 000 000 000 000 000 | 00500 00600 00750 01000 | - 00600 - 00750 - 01000 - 01500 | 097 000 048 097 | 00150 - 00 00250 - 00 00250 - 00 00350 - 00 | 00200 093 00250 069 00300 046 00350 023 | 00125 - 00150 00150 - 00175 00175 - 00200 00200 - 00250 00250 - 00300 | 022 | 00125 00150 00175 00200 00250 | - 00150 - 00175 - 00200 - 00250 | 000 045 000 000 000 |
| 02000 - 02500 02500 - 03000 03000 - 03500 03500 - 04000 04000 - 05000 | 00 044 00 066 00 022 | 02000 02500 03500 04000 05000 | - 02500 - 03000 - 04000 - 05000 | 073 048 121 024 | 00400 - 00 00450 - 00 00500 - 00 00600 - 00 | 00450 046 00500 000 00600 023 00700 000 | 00300 - 00350 00350 - 00400 00400 - 00450 00450 - 00500 | 1113 0000 0000 043 | 00350 00400 00450 00450 | 00350 00450 00450 00500 | 045 045 013 045 045 |
| 05000 - 06000 06000 - 08000 08000 - 10000 10000 - 15000 | 00 044 00 088 00 022 00 000 | 07000 - 09000 - 12000 - 15000 - 15000 - > | - 12000 - 15000 - 20000 | 0000 | 01500 - 01: 01500 - 02: 02000 - 03: 03500 - 06: | 01500 023 02000 162 03500 046 06000 000 | 00600 - 00700 00700 - 01000 01000 - 02000 02000 - 04000 > 04000 | 000000000000000000000000000000000000000 | 00600 00700 01000 > 04000 | - 01000 - 01000 - 02000 - 04000 | 045 022 159 000 000 |
| NO OF PEASUR PEAN (X10E-2) | +00045 | NE OF | MEASUR. [X10E-2] | +00041 | NO OF MEASUR. MEAN [X10E-3] | . +00043 -31 +00572 | NO OF MEASUR. MEAN [X10E-4] | +00044 | ME OF P | MEASUR. (X10E+51 | +00044 |
| SIGMA [X10E-2] | 21 +02253 | SIGNA | [X10E-2] | +02743 | SIGMA (X10E-31 | -31 +00698 | SIGNA [X10E-4] | 1 +00395 | SIGMA | [X10E-5] | +00333 |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PERIOD : 1975-1980

PARAMETER= VISIBILITY RANGE 10-20 KM

TABLE: 77

WANK PEAK 1780 M

| | - | | | | | | | | | | | | | | |
|---------------|----------------------------|-----------------------|--------------|----------------------------|-----------------------|----------------------------|----------|-----------------------|---------------|---------------------------------|-----------------------|---------------|----------------------------|-----------------------|--|
| | | | | | | | : | | | | | | | | |
| • • • | ■ 0. Z3 MI | | 0 • 20 | . O. 45 % | | 03 • 0 | 0. 93 MI | | 2 1 2 | 2. 80 MI | | DS = 4. 50 | . 50 MI | | |
| RES. NR. : | t : 342 | | RES. NR. : | k : 343 | | RES. NR. | 344 | | PES NR. | 3. 345 | | RES NR. | 1. : 346 | | |
| PARTIC [X1 | PARTICL, CONC. [X10E-2] | FREQUENCY [1/10 %] | PARTIC | PARTICL. CONC. EX10E-21 | FREGUENCY [1/10 x] | FARTICL. COND. [X10E-3] | _ | FREGUENCY [1/10 X] | PARTIC CX1 | PARTICL. CONC. FI [X10E-4] [| FREGUENCY [1/10 X] | PARTIC CX1 | PARTICL. CONC. (x10E-51 | FREGMENCY [1/10 %] | |
| < 00200 | 200 | 000 | 00100 × | 001 | 107 | ₹ 00025 | 125 | 140 | < 00025 | 025 | 200 | · 00025 | 025 | 000 | |
| 00200 | 00400 | 116 | 865 | 00200 | | 00025 | - 00030 | 087 | 00025 | - 00050 | 116 | 00025 | 1 | | |
| 00900 | 00800 | | 00000 | 1 00400 | | 0002 | 1 0000 | 025 | 0000 | 9/000 | 046 | 00000 | 1 000% | | |
| 00800 | - 01000 | 020 | 00400 | - 00200 | | 00100 | - 00130 | 020 | 00100 | - 00125 | 910 | 00100 | - 00125 | 5 032 | |
| 00010 | - 01200 | 020 | 00200 | 00900 | 00 00 | 00150 | - 00200 | 103 | 00125 | - 00150 | 020 | 00125 | - 00150 | 910 . 0 | |
| 01200 | - 01400 | | 00900 | - 00750 | | 00200 | - 00250 | 017 | 00120 | - 00175 | 016 | 00120 | - 00175 | | |
| 01400 | - 01600 | | 00750 | - 01000 | | 00250 | - 00300 | 210 | 00175 | - 00200 | 910 | 00175 | - 00200 | 016 | |
| <u>လ</u> ပ | - 01800 | | 00010 | - 01500 | | 00500 | - 00320 | 087 | 00200 | - 00250 | 990 | 00200 | - 00250 | | |
| 01400 | - 02000 | 020 | 01300 | - 02000 | 680 00 | 00320 | - 00400 | 0.35 | 00220 | 00300 - | 033 | 00220 | - 00300 | | |
| 02000 | - 02500 | 990 0 | 02000 | - 02300 | 053 | 00400 | - 00450 | 000 | 00300 | - 00350 | 910 | 00300 | - 00320 | 049 | |
| 02500 | - 03000 | 0 083 | 02500 | - 03000 | | 00450 | - 00500 | 033 | 00320 | - 00400 | 000 | 00320 | 00400 | | |
| 03000 | - 03200 | | 03000 | - 04000 | | 00200 | - 00900 | 000 | 00400 | - 00450 | 020 | 00400 | - 00450 | | |
| 03200 | - 04000 | | 04000 | - 02000 | _ | 00900 | - 00200 | 000 | 00450 | - 00200 | 910 | 00450 | - 00200 | 0 032 | |
| 3 8 | 92000 | 020 | 02000 | - 02000 | 107 | 00700 | 00010 - | 033 | 00200 | 00900 - | 990 | 00200 | 00900 - | | |
| 02000 | 00090 - | 0 033 | 00020 | - 09000 | 20 00 | 01000 | - 01500 | 122 | 00900 | - 00700 | 910 | 00900 | - 00700 | 032 | |
| 00090 | - 08000 | | 00060 | - 12000 | | 00210 | - 02000 | 033 | 00200 | - 01000 | 80 | 00200 | - 01000 | _ | |
| 00000 | 10000 | | 12000 | - 12000 | | 02000 | - 03200 | 087 | 00010 | - 02000 | 083 | 01000 | - 02000 | | |
| 10000 | 15000 | | 00051 | - 20000 | | 03200 | 00090 - | 000 | 02000 | - 04000 | 8 | 02000 | - 04000 | | |
| 00051 < | 8 | 000 | > 20000 | 000 | 000 | 00090 < | 000 | 000 | > 04000 | 1000 | 000 | > 04000 | | | |
| NO CF | NO UF MEASIR. | 09000+ | ¥ € | NO OF MEASUR. | +00056 | NO OF MENSUR | ENSUR. | +000027 | NO OF | NO OF MEASUR. | +00000 | NO OF | NO OF MEASUR. | +0000 | |
| HEAN | [X10E-2] | 1 +02395 | MEAN | [X10E-2] | 11 +02040 | MEAN | [X10E-3] | +00013 | MEAN | [X10E-4] | +00299 | MEAN | [X10E-5] | 1 +00508 | |
| SIGHA | CX10E-23 | 1 +02356 | SIGMA | CX10E-23 | 13 +02702 | STGMA | (X10E-3) | +00862 | STIMA | £X10E-43 | +00402 | SIGMA | CK10E-51 | 1 +00471 | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PERIOD: 1975-1980

TABLE: 78

PARAMETER VISIBILITY RANGE 40-50 KM

WANK PEAK 1780 M

| 10 | 0. 23 MI | | D2 = 0 | - 0. 43 M | Ē | | D3 = 0. | 0. 93 MI | | 04 = 2. | 2. 00 MI | | 05 = 4. | 4. 50 MI | |
|---|---|---------------------------------|---|-----------------------|---|---------------------------------|---|---|--------------------------|---|---|---------------------------------|--|---|---------------------------------|
| RES. NR. | 347 | | RES. NR. : | | 348 | | RES. NR. | . 349 | | RES NR. : | . 350 | | RES. NR. | . 351 | |
| PARTIC EXI | PARTICL. CONC. EX10E-21 | FREGUENCY [1/10 %] | PARTICL. CONC. [X10E-2] | 71CL. CON | £ 3 | EQUENCY /10 X3 | PARTICL. CONC. [X10E~3] | | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-4] | | FREGUENCY | PARTICL, CONC. [X10E-5] | | FREGUENCY [1/10 %] |
| C 60200 00200 - 00400 - 00600 - 00800 - | 200 - 00400 - 00600 - 00800 - 01000 | 062 137 056 062 062 | <pre></pre> | | 00200 00300 00400 00500 | 083 063 044 031 | <pre></pre> | 025 - 00050 - 00076 - 00100 - 00150 | 043 037 043 061 | <pre></pre> | 25 - 00050 - 00076 - 00100 - 00125 | 056 050 075 063 | 00025 00050 00076 00100 | 025 - 00050 - 00076 - 00100 - 00125 | 012 012 000 000 |
| 01000 01200 01400 01600 01800 | - 01200 - 01400 - 01600 - 01800 - 02000 | 062 037 050 018 050 | 00500 00600 00750 01000 01500 | 11111 | 00600 00750 01000 01500 02000 | 031 044 019 076 070 | 00150 00200 00250 00300 00350 | - 00200 - 00250 - 00300 - 00350 | 043 080 086 037 | 00125 00150 00175 00200 00250 | - 00150 - 00175 - 00200 - 00250 | 050 063 063 063 063 | 00125 00150 00150 00175 00200 | - 00150 - 00175 - 00200 - 00250 - 00300 | 025 018 012 068 |
| 02500 02500 03000 03500 04000 | - 02500 - 03000 - 03500 - 04000 - 05000 | 087 056 075 043 | 02500 02500 03000 04000 05000 | 11111 | 02500 03000 04000 05000 07000 | 070 012 050 121 | 00400 00450 00500 00500 00700 | - 00450 - 00500 - 00600 - 00700 | 037 018 049 123 | 00300 00350 00400 00450 00500 | - 00350 - 00400 - 00450 - 00500 - 00500 | 056 031 037 037 | 00300 00350 00400 00450 00500 | - 00350 - 00400 - 00450 - 00500 - 00600 | 093 056 050 062 106 |
| 05000 - 06000 - 09000 - 10000 - 15000 | - 06000 - 08000 - 10000 - 15000 | 0431 043 006 000 | 07000 - 09000 - 12000 - 15000 - > 20000 | | 09000 12000 15000 20000 | 0.00 000 000 | 01000 01500 02000 03500 > 06000 | - 01500 - 02000 - 03500 - 06000 | 098 037 055 000 | 00600 - 00700 - 01000 - 02000 - > 04000 | - 00700 - 01000 - 02000 - 04000 | 101 929 900 900 900 | 00600 00700 01000 02000 > 04000 | - 00700 - 01000 - 02000 - 04000 | 062 187 118 018 |
| NE AN STEMM | NO OF MEASUR. MEAN (X10E-2) SIGMA (X10E-2) | +00160 | NO OF MEASUR MEAN CXIOE SIGNA CXIOE | MEASI CX10 CX10 | -21 | +00157 | NO OF P | MEASUR. [X10E-3] [X10E-3] | +00162 | NO OF P MEAN SIGMA | MEASUR. [X10E-4] [X10E-4] | +00158 | NO OF P | MEASUR. [X10E-5] [X10E-5] | +00160 |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PERIOD: 1975-1980 WANK PEAK 1780 M

TABLE: 79

| PARA | PARAMETER≖ | VISIBILITY RANGE | ITY R | ANGE >95 | Z KM | | | | | | | | | |
|--|--------------------------------------|---------------------------------|---|--|----------------------|--|--|---------------------------------|---|---|---------------------------------|---|---|---------------------------------|
| 0 = 10 | 0. 23 HI | | D2 = 0. 45 MI | 45 MI | | D3 = 0.5 | 0. 93 MI | | D4 = 2. | 8 2 00 MI | | D5 = 4, 50 MI | 50 MI | |
| RES NR. | 282 | | RES. NR. | : 283 | | RES, NR. | 284 | | RES. NR. : | . 285 | | RES. NR. | . 286 | |
| PARTICL CONF | | FREGUENCY | PARTICL. CONC. [X10E-2] | | FREQUENCY | PARTICL. CONC. [X10E-3] | | FREQUENCY (1/10 %) | PARTICL CONC. [X10E-4] | | FREGUENCY | PARTICL. COMC. EX10E-51 | TICL. CONC. [X10E-5] | FRECNENCY |
| C 00200 | 00400 | 134 | 001000 0010000 00100 00100 00100 00100 00100 001000 00100 00100 00100 00100 00100 00100 00100 00100 00100 00100 00100 00100 00100 00100 00100 | 100 00200 | 191 | < 00025 00025 - | 25 - 00050 - 00076 | 050 | < 00025 00025 - 00050 - |)25 - 00050 - 00076 | 168 | <pre></pre> | 025 - 00050 - 00076 | 000 060 043 |
| | 00000 | 117 | 00300 | - 00400 | | 000076 | - 00100 | 601 | 00000 | - 00100 - | 058 | 000076 | - 00100 | |
| 01000 | - 01200 | 050 | 00200 | - 00600 | | • | 00200 | 058 | 00123 | 00150 | 075 | 00125 | | |
| 00810 | - 01800 - 01800 - 02000 | 008 033 025 | 00750 01000 01500 | - 01000 - 01500 - 02000 | 058 091 108 | 00250 00300 00350 | - 00350 - 00350 - 00400 | 033 050 042 | 00175 00200 00250 | - 00200 - 00250 - 00300 | 029 058 033 | 00175 00200 00250 | - 00200 - 00250 - 00300 | 077 094 051 |
| 0.27:00 0.27:00 0.37:00 0.37:00 | 02500 03000 03500 04000 | 050 042 058 042 050 | 02000 02500 03000 04000 05000 | - 02500 - 03000 - 04000 - 05000 | 9100 9000 9000 | 00400 00450 00500 00600 | 00450 00500 00500 00700 | 008 025 042 016 084 | 00300 00350 00400 00450 00500 | - 00350 - 00400 - 00450 - 00500 - 00500 | 025 025 016 025 025 | 00300 00350 00400 00450 | - 00350 - 00400 - 00450 - 00500 - 00600 | 051 051 068 025 060 |
| 19660 - 19660 - 19660 - 19660 | 00090 00090 - 10000 - 12000 | 8 8 0 0 0 | 07000 09000 12000 15000 > 20000 | - 09000 - 12000 - 15000 - 20000 | 000000 | 01000 - 01500 - 02000 - 03500 - | - 01500 - 02000 - 03500 - 06000 | 025 000 000 000 | 00600 00700 01000 02000 | - 01000 - 01000 - 02000 - 04000 | 028 033 000 000 | 00600 00700 01000 02000 > 04000 | - 00700 - 01000 - 02000 - 04000 | 034 051 068 000 |
| ÷ § | MEASUR [X10E-2] | +00119 | NO OF MEASUR. | MEASUR. [X10E-2] | +00120 | NO OF MEASUR | EASUR. EX10E-31 | 61100+ | NO OF MEASUR | MEASUR. [X10E-4] | +00119 | NO OF P | MEASUR. [X10E~5] | +00116 |
| ξ | (4)0E 2) | +01414 | SIGMA | [X10E-2] | 9E9001 | SIGNA | [X10E-3] | +60479 | SIGMA | [X10E~4] | +00256 | SIGMA | [X10E-5] | +00360 |

FRAUNHOFER-GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTE--ETC F/G 4/1 PARAMETERIZATION OF THE VERTICAL PROFILE OF THE AEROSOL CONSTIT--ETC(U) MAR 81 RELITER SLADKOVIC. W CARNUTH _______FOSR-77-3228 AD-A100 004 AFOSR-TR-81-0471 UNCLASSIFIED 2002 40 41000 4 END DATE 6 8I

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 80

ZUGSPITZE PEAK 3000 M

| Σ |
|-----------------|
| >95 |
| RANGE |
| ILITY |
| BII |
| Ħ |
| \$1 > |
| PARAMETER= |

| D1 = 0 23 MI | | D2 = 0. 45 MI | I | | D3 = 0.93 ME | 3 ME | | D4 = 2.00 HI | I# 8 | | DS = 4, 50 MI | 90 HI | |
|---|--|--|---|---------------------------------|--|---|--------------------------|---|---|---------------------------------|---|---|---------------------------------|
| RES. NR. : 287 | | RES. NR. : 2 | 288 | <u> </u> | RES. NR. : | 289 | | RES. NR. : | . 290 | | RES. NR. : | : 291 | |
| PARTICL, CONC. [X10E-2] | FREGUENCY [1/10 X] | PARTICL. CONC. [X10E-2] | C. FREGUENCY [1/10 %] | JENCY 7. X.1 | PARTICL. CONC. [X10E-3] | | FREQUENCY | PARTICL. CONC. [X10E-4] | | FREGUENCY | PARTICL. CONC. [X10E-5] | | FREGUENCY [1/10 %] |
| C 00050 00050 - 00100 00100 - 00150 00150 - 00200 00200 - 00250 | 00 072 50 108 00 090 50 054 | 0 - 00015 00013 - 00000 0 - 00030 - 0 | 00030 00045 00060 | 053 058 080 071 125 | 00015 00030 00045 | 00030 00043 00060 00073 | 036 126 054 072 | 00015 00015 00030 00045 00060 |)15 - 00030 - 00045 - 00060 - 00075 | 098 035 071 | 0002500025000500007600100 | 255 - 00050 - 00076 - 00100 - 00125 | 000 028 037 065 093 |
| 00250 r 00300 00300 r 00350 00350 r 00400 00400 r 00500 | 00 081 50 072 00 090 00 090 | 00073 - 0 00090 - 0 00105 - 0 00120 - 0 | 00090 00105 00120 00150 | 035 017 062 044 053 | 00075 - 000090 - 00105 - 00120 - 00150 | 00090 00105 00120 00150 | 054 036 036 126 | 00075 00090 00105 00120 00150 | | 071 062 053 080 116 | 00125 00150 00175 00200 00225 | - 00150 - 00175 - 00200 - 00225 - 00250 | 074 102 065 065 |
| 00600 - 00800 00800 - 01000 01000 - 01250 01250 - 01500 01500 - 02000 | 00 099 00 027 50 036 00 027 | 00250 + 0 00250 - 0 00300 - 0 00400 - 0 | 00250 00300 00400 00600 00900 | 026 026 071 062 071 | 00200 00250 00300 00400 | 00250 00300 00400 00600 00900 | 063 045 045 081 | 00200 00250 00300 00400 00600 | 00250 00300 1 00400 1 00600 | 071 053 017 026 017 | 00250 00275 00300 00325 00350 | - 00275 - 00300 - 00325 - 00350 | 018 056 018 037 065 |
| 02000 - 03000 03000 - 04000 04000 - 06000 06000 - 12000 > 12000 | 00 00 00 00 00 00 00 00 00 00 00 00 00 | 00900 - 0 01500 - 0 02500 - 0 05000 - 1 | 01500 02500 05000 10000 | 062 017 000 000 | 00900 01500 02500 05000 > 10000 | 01500 02500 05000 10000 | \$ 8 0 0 0 0 0 0 0 0 | 60900 - 01500 - 02500 - 05000 - | - 01500 - 02500 - 05000 - 10000 | 000 000 000 000 | 00400 - 00500 - 00750 - 01000 - 02000 | - 00500 - 00750 - 01000 - 02000 | 121 084 028 028 000 |
| NO OF MEASUR. MEAN (X10E-2) SIGMN (X10E-2) | +00111 21 +00510 21 +00506 | NO OF MEASUR. MEAN (X10E-2) SIGMA (X10E-2) | | +00112 | NO OF MEASUR MEAN TX10E SIGMA TX10E | EASUR. [X10E-31 [X10E-31 | +00111 | NO OF MEASUR MEAN EXIGE SIGMA EXIGE | FASUR. [X10E-4] [X10E-4] | +00112 | NO OF MEASUR. MEAN EXIOE SIGMA EXIOE | EASUR. [X10E-5] [X10E-5] | +00107 |

BARMISCH (VALLEY 740 M) TABLE: 81

PERIOD: 1970-1980

PARAMETER = EXCHANGE COEFFICIENT BETWEEN VALLEY AND WANK <5 G/CM. SEC (VERY LOW)

| PRIME IEN- EACHINGE COLF FOIL | | 100 TON | ***** | | | | | | | | | | |
|-------------------------------|-----------|---------------|-------------------|-----------------------|----------------------------|------------|-----------------------|--|-----------|-----------------------|---------------------------------|----------|-----------------------|
| | | | | | | | | | | | | | |
| D1 = 0. 23 MI | | D2 = 0. | - 0. 45 MI | | D3 = 0. | 0. 93 MI | | 04 = 2. | # 2.00 HI | | D5 = 4, 50 MI | 30 NI | |
| RES. NR.: 307 | | RES. NR. : | 300 | | RES. NR. : | 309 | | RES. NR. : | . 310. | | RES. NR. : | 311 | |
| PARTICE CONC. EX10E-23 | FREGMENCY | PAR | _ | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-3] | _ | FREGUENCY [1/10 %] | PARTICL. CONC. [X10E-4] | | FREGUENCY [1/10 X] | PARTICL. CONC. [X10E-5] | | FREGUENCY [1/10 %] |
| 0200 | | 00200 × | | 180 | < 00130 | | 035 | ¢ 00030 | | 025 | < 00200 | _ | |
| 00200 - 01000 | 092 | 00000 | 00010 - | | | | 827 | 000020 | 00100 | 064 | 00200 | - 00400 | |
| 1 1 | | 0000 | - 02000 | 064 | 00450 | 00430 | 136 | 00 00 00 00 00 00 00 00 00 00 00 00 00 | - 00150 | 022 | 0 0 0 0 0 0 0 | 00800 | 107 |
| 02000 - 02500 | 020 | 02000 | - 02500 | | | - 00750 | 052 | 00200 | - 00250 | 890 | 00800 | - 01000 | |
| 1 | | 02200 | - 03000 | 042 | 00750 | ~ 00600 | 048 | 00220 | - 00300 | 072 | 01000 | - 01200 | |
| r | | 03000 | - 03200 | 047 | 00800 | - 01020 | 052 | 00300 | - 00320 | 042 | 01200 | - 01400 | |
| 03200 - 04000 | | 03200 | - 04000 | 029 | 01020 | - 01200 | 048 | 00320 | - 00400 | 034 | 01400 | 01000 | 053 |
| , ; | | 04000 | • | 021 | 00710 | - | 044 | 00400 | 00200 - | 090 | 00910 | 01800 - | |
| masa - masa | 070 | 000 | 00000 - | 450 | 01320 | - 01200 | 032 | 00200 | 00900 - | 190 | 01800 | - 02000 | 040 |
| 1 | | 02000 | 00090 - | 053 | 01200 | - 01650 | 610 | 00900 | - 00700 | 980 | 05000 | - 02250 | |
| ı | | 00090 | - 07000 | 029 | 01650 | - 01800 | 022 | 00200 | 00800 - | 025 | 02250 | - 02200 | |
| 00001 - 00001 | | 00000 | 00000 | 210 | 01800 | - 02000 | 022 | 00800 | 00600 - | 025 | 02200 | 03000 | |
| 4 | 138 | 0000 | 2000 | 960 | 02500 | 03000 | 027 | 00010 | - 01250 | 3 * | 03200 | 000000 | 076 976 |
| | | | | | | | | | | | | | |
| 25000 - 40000 | 990 | 2000 | 2000 3000 1 | 042 | 03000 | - 04000 | 040 | 01250 | - 01500 | 047 | 04000 | 00000 | 800 |
| 1 | | 30000 | | 0.34 | 00090 | 00000 | 200 | 00000 | 00000 | 040 | 02000 | 9000 | |
| 1 | | 40000 | 20000 | 8 | 10000 | 20000 | 88 | 03000 | 00090 | 090 | 00060 | 12000 | 3 |
| > 100000 | 000 | > 50000 | | 000 | > 20000 | | 00 | 00090 < | | 000 | > 12000 | | 8 |
| NO OF MEASUR. | +00239 | NO OF MEASUR. | EASIJR. | +00234 | NO OF MEASUR | EASUR. | 100227 | NO OF H | MEASUR. | +00233 | NO OF MEASUR | EASUR. | +00223 |
| MEAN (K10E-2) | 1 +10051 | MEAN | (X10E-23 | +07199 | MEAN | £ x 10E-33 | +01500 | MEAN | [X10E-4] | +00828 | MEAN | [X10E-5] | +02435 |
| SIGHA EXIDE-23 | 1 +11257 | SIGMA | CX10E-23 | +08501 | SIGMA | (X10E-3) | +01689 | SIGHA | [X10E-4] | +00911 | SIGMA | CX10E-53 | +01956 |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PERIOD: 1970-1980 GARMISCH (VALLEY 740 M) TABLE: 82

PARAMETER EXCHANGE COEFFICIENT BETWEEN VALLEY AND WANK 6-10 G/CM. SEC

| D1 = 0.23 HI | | D2 = 0.45 | 45 HI | | D3 = 0, 93 | 1H E6 | | D4 = 2. | 2. 00 MI | | 85 a 4. | # 4.50 MI | |
|---|---------------------------------|---|--|---------------------------------|---|--|---------------------------------|---|---|---------------------------------|---|---|---|
| RES. NR. : 352 | | RES. NR. | . 353 | | RES. MR. : | 354 | | RES. NR. : | . 355 | - | RES. NR. | . 326 | |
| PARTICL. CONC. F | FREGUENCY [1/10 X] | PARTICL. CONC. (X10E-21 | | FREQUENCY | PARTICL. CONC. [X10E-3] | _ | FREGUENCY (1/10 X1 | PARTICL. CONC. [XIOE-4] | | FREGUENCY [1/10 X] | PARTICL. CONC. (X10E-5) | | FREQUENCY [1/10 %] |
| 00500 00500 0100 01500 0200 0200 | 054 121 072 066 048 | C 00500 00500 - 01000 - 01500 - 02000 - | 500 - 01000 - 01500 - 02500 | 087 137 112 062 087 | C 00150 C 0150 - C 0300 - C 0450 - | 50 - 00300 - 00450 - 00600 - 00750 | 068 161 124 068 062 | 0005000050001000015000200 |)50 - 00100 - 00150 - 00200 - 00250 | 043 075 068 075 | 0020000200004000060000800 | 200 - 00400 - 00600 - 00800 - 01000 | 043 043 093 111 |
| 02500 - 03000 03000 - 03500 03500 - 04000 04000 - 05000 | 048 060 054 036 036 | 02300 03500 04000 04500 | 03000 04000 04000 05000 | 031 037 043 018 025 | 00750 00900 01050 01300 | - 00900 - 01050 - 01200 - 01350 | 074 037 049 024 | 00250 00350 00350 00400 00500 | 00300 1 00350 1 00500 1 00500 | 075 068 056 050 087 | 01000 01200 01400 01600 | - 01200 - 01400 - 01600 - 01800 - 02000 | r55 074 062 018 |
| 06000 - 07000 07000 - 09000 08000 - 10000 10000 - 15000 15000 - 25000 | 012 030 066 127 084 | 05000 06000 07000 08000 10000 | 00000 1 00000 1 10000 1 15000 | 031 037 037 043 093 | 01500 01650 01800 02000 02500 | 01650 01800 02000 02500 03000 | 006 037 018 080 031 | 00600 00700 00800 00900 01000 | 00700 00800 00900 01000 | 037 068 037 006 | 02000 02250 02500 03000 03500 | - 02250 - 02500 - 03500 - 03500 - 04000 | 037 055 024 04 |
| 25000 - 40000 40000 - 60000 60000 - 80000 80000 - 100000 >100000 | 048 0024 0006 000 | 15000 - 20000 - 30000 - 40000 - > 50000 | 20000 30000 140000 150000 | 043 000 000 000 | 03000 04000 05000 10000 > 20000 | 04000 06000 1 10000 | 049 043 000 000 | 01250 01500 02000 03000 | - 01500 - 02000 - 03000 - 06000 | 018 081 005 006 | 04000 - 05000 - 07000 - 09000 - > 12000 | - 05000 - 07000 - 09000 - 12000 | 000 000 000 000 000 000 000 000 000 00 |
| NO OF MEASIN. MEAN (XIOE-2) SIGNA (XIOE-2) | +00165 | NO OF I HEAN SIGNA | NO OF MEASUR. MEAN (X10E-2) SIGMA (X10E-2) | +00160 +05835 +06897 | NO OF M MEAN STOMA | NEASUR. [X10E-3] [X10E-3] | +01383 +01383 +01634 | NO OF MEASUR MEAN (XIOE STOWN (XIOE | MENSIAR. [X10E-4] [X10E-4] | +00160 +00586 +00591 | NO OF HEAN STONA | MEASUR. [X10E-53 [X10E-53 | +00161 +02058 +01779 |

TABLE: 83 GARMISCH (VALLEY 740 M)

PERIOD: 1970-1980

PARAMETER = EXCHANGE COEFFICIENT BETWEEN VALLEY AND WANK 11-25 G/CM. SEC

| 0 = 0 | = 0.23 MI | | 05 = 0 | = 0. 45 HI | Ħ | | D3 = 0.93 | 93 MI | - | D4 = 2.00 | 1H 00 | | 8 | D5 = 4. 50 MI | |
|----------------------------|-----------|-----------------------|----------------------------|-----------------------|----------|-----------------------|----------------------------|----------|-----------------------|----------------------------|----------|-----------------------|------------------|----------------------------|-----------------------|
| PES NAR. | 362 | | RES. NR. : | | 696 | | RES. NR. | 364 | | RES. NR. : | 365 | | RES. NR. | .: 366 | |
| PARTICL. CONC. [X10E-2] | | FREGUENCY [1/10 X] | PARTICL. CONC. EX10E-21 | TICL. CON [X10E-2] | | FREGUENCY [1/10 %] | PARTICL. CONC. [X10E-3] | _ | FREGUENCY [1/10 X] | PARTICL. CONC. [X10E-4] | _ | FREGUENCY [1/10 %] | PARTIC [X1 | PARTICL, CONC. [X10E-5] | FREGUENCY [1/10 %] |
| < 00500 00500 - | 0 | 111 | < 00500 00500 - | | 9 | 411 | < 00150 | 50 | 101 | 05000 > | 550 | 062 | < 00200 00300 | 200 | |
| | | | 86 | | 01200 | 690 | 00000 | 00400 | 126 | 8 | 00120 | 160 | 900 | 00900 | 980 |
| 05000 | | | 02000 | 1 | 02300 | 114 | 00000 | - 00750 | 092 | 00200 | - 00250 | 9 6 | 808 | 00010 | |
| 02500 | 03000 | | 02200 | 0 | 03000 | 933 | 00750 | 00600 - | 046 | 00220 | - 00300 | 033 | 01000 | - 01200 | |
| 03000 | 03500 | 041 | 03000 | 11 | 03500 | 934 | 00600 | - 01050 | 020 | 00300 | - 00320 | 033 | 01200 | - 01400 | 666 |
| 04000 | 02000 | | 0400 | , 0 | 04300 | 025 | 01200 | - 01350 | 021 | 00400 | 00200 | 160 | 00910 | 00810 | |
| 02000 | 00090 | 040 | 04200 | 0 | 02000 | 710 | 01320 | - 01500 | 021 | 00200 | 00900 - | 049 | 01800 | - 02000 | |
| - 00090 | 00020 | 024 | 02000 | 0 | 00090 | 034 | 01200 | - 01650 | 0.25 | 00900 | - 00700 | 049 | 02000 | - 02250 | 0 043 |
| 00000 | 00000 | | 00000 | 11 | 07000 | 017 | 01650 | 01800 | 910 | 00,00 | 00800 | 5.40 | 02250 | - 02500 | |
| 10000 | 15000 | | 03080 | 1 | 0000 | 620 | 02000 | - 02500 | 042 | 2000 | 00010 | 033 | 00000 | 00000 | |
| 15000 | 25000 | 190 | 10000 | - | 15000 | 08 08 0 | 02200 | - 03000 | 025 | 01000 | - 01250 | 043 | 03200 | - 04000 | |
| 25000 | 40000 | 028 | 15000 | 1 | 20000 | 021 | 03000 | - 04000 | 029 | 01250 | - 01500 | 053 | 04000 | - 03000 | 038 |
| | | | 2000 | 1 | 30000 | 046 | 04000 | 00090 - | 0.37 | 01200 | - 02000 | 049 | 02000 | - 02000 | |
| 00008 | 00000 | 88 | 0000 | 4 ¥ | | 88 | 0000 | 0000 | 683 | 02000 | 03000 | 037 | 9000 | 08000 | 250 |
| 8 | 0 | | > 50000 | | | 8 | > 20000 | | 88 | 00090 < | _ | 8 | > 12000 | | |
| NO OF ME | MEASUR | +00242 | 70 OF | MEASUR | Œ | +00235 | NO OF M | MEASUR. | +00237 | NO OF | MEASUR. | +00241 | ¥0 0£ | MEASUR. | +00232 |
| HEAN | [X10E-2] | +06332 | MER | [XIO | tx10E-21 | +05221 | MEAN | [X10E-3] | +01240 | MEAN | (X10E-4) | +00727 | HEAN | (X10E-53 | 1 +01996 |
| SICHN C | CX10E-23 | +09243 | SIGMA | CX 10 | (X10E-23 | +06402 | SIGMA | (X10E-3) | +01682 | STOMA | [X10E-4] | +00800+ | STORM | [X10E-5] | 1 +01763 |
| | | | | | | | | | | | | | | | |

PARAMETER = EXCHANGE COEFFICIENT BETWEEN VALLEY AND WANK 26-50 0/CM. SEC GARMISCH (VALLEY 740 M) TABLE: 84

| 0 • 0 | ■ 0. 23 HI | | D2 = 0. 45 | . 45 MI | | 103 ■ 0. | ■ 0. 93 MI | | D4 = 2. | = 2.00 MI | | 05 = 4, 50 | 50 MI | |
|----------------------------|------------|-----------------------|-------------------------------|----------------------------|-----------------------|----------------------------|---------------|-----------------------|----------------------------|-----------|-----------------------|--------------------|---------------|-----------------------|
| RES. NR. | 372 | | RES NR. : | 1.: 373 | | RES. NR. : | 374 | | RES. NR. | 375 | | RES. NR. : | 376 | |
| PARTICL. CONC. (X10E-2) | | FREQUENCY [1/10 X] | PARTIC LX1 | PARTICL. CONC. [X10E-2] | FREGUENCY (1/10 %) | PARTICL. CONC. [X10E-3] | | FREGUENCY [1/10 X] | PARTICL. CONC. [X10E-4] | | FREGUENCY [1/10 X] | PARTICL. CONC. | _ | FREGUENCY [1/10 X] |
| 00200 | | 063 | 00200 | | | < 00150 | | 690 | 05000 > | | 032 | < 00200 | | 000 |
| 00010 | 01200 | 2 6 | 00010 | 00000 | - | 00120 | - 00450 | 132 | 0000 00100 | 00100 | | 00500 00400 | 00400 | 059 073 |
| 01500 | - 02000 | 121 078 | 01200 | - 02000 - 02500 | 060 0 | 00450 | - 00400 - | 042 | 00150 | - 00200 | 043 | 00900 | 00010 - | 059 08¢ |
| 02300 | 03000 | 063 | 02500 | - 03000 | 690 | 00750 | 00600 - | 074 | 00250 | - 00300 | 640 | 00000 | - 01200 | 043 |
| 03000 | 0.3500 | 031 | 03000 | - 03200 | _ | 00600 | - 01050 | 053 | 00300 | - 00320 | 090 | 01200 | - 01400 | 980 |
| 93300 | 94000 | 042 | 03200 | 04000 | | 01020 | - 01200 | 160 | 00320 | - 00400 | 590 | 01400 | - 01600 | 043 |
| 00000 | 00090 | 88 | 94300 | 02000 | 042 | 01320 | - 01300 | 021 | 00500 | 00900 | 920 | 000 | - 02000 |) 5 |
| | - 02000 | 031 | 02000 | 00090 - | | 01200 | - 01650 | 920 | 00900 | - 00200 | 8 | 02000 | - 02250 | 070 |
| 0000 | 00000 | 9 8 8 8 | 00000 | 07000 | 031 | 01650 | - 01800 | 026 | 00700 | 00800 | 96 | 02220 | - 02200 | 643 |
| 000 | 15000 | 8 2 | 8 | 10000 | - | 05000 | 02500 | 074 | 00800 | 00000 | 052 | 0000 | 03200 | 048 |
| | | • | | • | | | | 1 | | | } | | | 2 |
| 72000 40000 40000 | 00009 | 042 021 | 20000 | 30000 | 0 021 | 03000 | - 04000 | 047 | 01250 | - 01500 | 065 | 04000 | - 05000 | 070 075 |
| 00009 | - 80000 | 8 | 30000 | - 40000 | | 00090 | 00001 - | 031 | 0.2000 | - 03000 | 027 | 00020 | 00060 - | 027 |
| - 00008 - 00008 | 000001 00 | 88 | - 40000 - 50000 - 50000 | 20000 | 9 9 9 9 9 | 10000 - | - 20000 00 | 88 | 03000 < - 00000 | 000 | 800 800 800 | 09000 - > 12000 | - 12000 00 | 88 |
| NO OF MEASUR. | ASJR. | +00190 | - 1 0 | NO OF MEASUR. | +00188 | NO OF H | MEASUR. | +60188 | N 05 | MEASUR. | +00182 | NO OF MEASUR | FASUR. | +00185 |
| HEAN | [X10E-2] | +06949 | TE PE | (X10E-2) | 1) +05210 | MEAN | [X10E-3] | +01344 | MEAN | [X10E-4] | 15900+ | HEAV | [X10E-53 | +02277 |
| SIGHN | [X10E-2] | +09760 | STOMA | [X10E-2] | 1 +05676 | SIGMA | (X10E-3) | +01520 | SIGMA | [X10E-4] | +00284 | SIGHA | (X10E-5) | +6110+ |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

GARMISCH (VALLEY 740 M) TABLE: 85

| PARAMETER= | | ANGE CO | EXCHANGE COEFFICIENT | 1 | EEN VA | LLEY A | BETWEEN VALLEY AND WANK | 31-1(| 31-100 G/CM. SEC | SEC | | | |
|---------------------------------|------------------------|---------------|------------------------------|-----------------------|----------------------------|----------------------|-------------------------|--|--------------------------------|-----------------------|--|------------|-----------------------|
| = 0.23 MI | _ | B2 = 0 | 0. 45 MI | | D3 = 0 | = 0.93 MI | | D4 = 2.00 | . 00 HI | | US = 4. 50 HI | 30 MI | |
| RES. NR : 382 | ~ | RES. NR. | .: 383 | | RES. NR. | 48 | | RES. NR. : | 382 | | RES. NR. : | 986 | |
| PARTICL. CONC [X10E-2] | FREGUENCY [1/10 X] | | PARTICL. CONC. 1 LX10E-23 | FREGUENCY [1/10 %] | PARTICL. CONC. CX10E-33 | | FREGUENCY [1/10 X] | PARTICI CX10 | PARTICL. CONC. F [X10E-4] [| FREGUENCY [1/10 X] | PARTICL. CONC. EX10E-51 | _ | FREGRENCY (1/10 %) |
| < 00200 > | 980 | 00200 > | 200 | 053 | < 00150 | 8 | 260 | 05000 > | 020 | 860 | < 00200 | 8 | 900 |
| ı | | 00:00 | - 01000 | | 00120 | - 00300 | 140 | 00020 | | 690 | 00200 | _ | 028 |
| 1 | 02000 090 | 0000 | - 01500 | | 8 8 | - 00 4 30 | % 2 8 2 8 | 80 100 100 100 100 100 100 100 100 100 1 | - 00150 | 092 058 | 00 00 00 00 00 00 00 00 00 00 00 00 00 | 00800 | 073 073 |
| 62000 - 02 | | 02000 | - 02200 | | 00900 | - 00750 | 8 | 00500 | - 00220 | 650 | 00800 | - 01000 | 073 |
| 1 | | 02200 | - 03000 | | 00730 | 00600 | 926 | 00220 | - 00300 | . 620 | 01000 | - 01200 | 920 |
| • | | 03000 | 03200 | | 00%00 | 01020 | 850 | 00300 | - 00320 | 029 | 01200 | - 01400 | E90 |
| 04000 - 050 | 02000 038 | 04000 | 000000 | 98 0 | 0000 | 01700 | 053 | 9 8 8 | 1 00400 | 029 | 200 | 01600 | 034 |
| 1 | | 04500 | - 02000 | | 01320 | 01200 | 033 | 00200 | 00900 - | 689 | 01800 | - 02000 | 048 |
| ı | | 03000 | - 06000 | | 01200 | - 01650 | 024 | 00900 | - 00700 | 028 | 02000 | - 02250 | 058 |
| 1 | | 00090 | - 07000 | 048 | 01650 | - 01800 | 600 | 00700 | 00800 - | 028 | 02220 | - 02500 | 044 |
| 1 | | 02000 | 00080 - | | 01900 | - 02000 | 014 | 0000 | 00800 - | 029 | 02200 | - 03000 | 020 |
| 15000 - 150 15000 - 250 | 15000 019 25000 095 | 10000 | 12000 | 101 | 02000 | - 02500 | 8 6 0 6 9 | 000010 | - 01000 | 0 0 0 0 0 0 | 03000 | - 03500 | 0 0 |
| 750.00 - 400 | 00000 | | | | 3000 | 0,000 | - | | 1 | | | | |
| | | 20000 | | 650 | 2000 | 00000 | 2 of 6 | 000 | 2000 | 200 | | 03000 | 000 |
| t | | 30000 | 40000 | | 00000 | - 1000 | 2 E | 05000 | 03000 | 88 | 02000 | 00060 | 610 |
| \$00 00 - 100 >100000 | 000 000 0000001 | 40000 5000 | 50000 | | 10000 - | | 88 | 0.0000 - 0.0000 | _ | 800 | 09000 - | | 88 |
| NO OF MEASUR. | +00210 | N 04 | MEASUR. | +002004 | NO OF | MEASUR. | +00200 | NO OF P | MEASUR. | +00203 | NO 04 | MEASUR. | +00204 |
| HEAN [X10E-2] | -21 +05933 | MEAN | [X10E-2] | +06327 | MEAN | (X10E-31 | +01405 | MEAN | [X10E-4] | +00793 | MEAN | (X10E-53 | +02296 |
| SIGMA [X10E-2] | -21 +07926 | SIGHA | [X10E-2] | +07289 | STORM | [X10E-3] | +01689 | SIGHA | [X10E-4] | +00846 | STOMA | (X10E-5) | +01859 |
| | | | | | | | | _ | | | | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

GARMISCH (VALLEY 740 M) TABLE: 86

PARAMETER = EXCHANGE COEFFICIENT BETWEEN VALLEY AND WANK 101-500 G/CM. SEC

| DI = 0. 23 HI | | . D2 = 0 | - 0, 45 HI | | D3 = 0. 93 MI | Ĭ | | D4 = 2. | 2. 00 MI | | 05 = 4, 50 | 30 MI | |
|--------------------------------|-----------|--------------------|----------------------------|-----------|----------------------------|----------------|-----------|----------------------------|----------|--------------------------------------|------------------|------------------|-----------------------|
| RES. NR : 392 | | RES. NR. : | l.: 393 | | RES. NR. : | 394 | | RES. NR. : | 395 | | RES. NR. : | 386 | |
| PARTICL. CONC. F [X10E-2] [| FREGRENCY | PARTIC [X1 | PARTICL. CONC. [X10E-23 | FREQUENCY | PARTICL. CONC. [X10E-3] | _ | FREQUENCY | PARTICL, CONC. (X10E-41 | _ | FREGUENCY [1/10 %] | PARTICA CX10 | PARTICL. CONC. I | FREQUENCY [1/10 X] |
| < 00500 | 112 | × 00200 | 200 | 053 | < 00150 | | 980 | ¢ 00020 | 920 | 078 | < 00200 | 200 | 8 |
| 1 | 084 | 00200 | - 01000 | | 1 | 00300 | 118 | 00000 | - 00100 | 053 | 00200 | - 00400 | 065 |
| 01000 - 01500 | 890 | 0000 | - 01500 | | ı | 00450 | 127 | 00100 | - 00150 | 028 | 00400 | 00900 - | 082 |
| 02000 - 02500 | 900 | 02000 | - 02500 | 88 | 00900 | 00500 00750 | | 00700 00700 | - 00200 | 029 | 0000 | 00000 | 102 |
| 02500 - 03000 | 180 | 02500 | 03000 | 020 | - 0072 | 0000 | | 000 | 1 | 900 | 2 | 00000 | 98 |
| , | 980 | 03000 | - 03200 | _ | - 00600 | 01020 | 250 | 0000 | - 00320 | - | 01500 | • | 078 |
| ı | 052 | 03200 | - 04000 | | 01050 - | 01200 | 049 | 00320 | - 00400 | 029 | 01400 | - 01600 | |
| 1 | 072 | 04000 | - 04500 | | 01200 - | 01350 | 910 | 00400 | - 00300 | 087 | 00910 | - 01800 | |
| 02000 - 00050 | 890 | 04300 | - 02000 | 033 | 01350 - | 01200 | 023 | 00200 | 00900 - | 062 | 01800 | - 02000 | 037 |
| ı | 048 | 02000 | 00090 - | | - 01200 | 01650 | 980 | 00900 | - 00700 | 990 | 02000 | - 02220 | 087 |
| , | 070 | 00090 | - 07000 | | - 05910 | 01800 | 043 | 00700 | 00800 - | 920 | 02250 | - 02500 | 049 |
| t | 980 | 02000 | 00080 - | | - 00810 | 02000 | 910 | 00800 | - 00900 | 028 | 02200 | - 03000 | 065 |
| 15000 - 15000 | 090 | 0000 | 1 1 | 045 | 02000 | 02500 | D 0 | 00600 | 00010 | 1 0 2 | 03000 | 03200 | 037 |
| | } | } | • | | 20040 | 3 | } | 3 | 01730 | 200 | 3 | 3 | 250 |
| ı | 980 | 15000 | - 20000 | | - 00000 | 04000 | 024 | 01250 | - 01500 | 140 | 04000 | - 05000 | 024 |
| ŧ | 028 | 20000 | 30000 | | 04000 | 00090 | 024 | 01200 | - 02000 | 049 | 02000 | - 07000 | 048 |
| 1 | 800 | 30000 | 10000 | | - 00090 | 10000 | 035 | 02000 | - 03000 | 990 | 02000 | - | 078 |
| 2100000 - 1000001 | 88 | 40000 - > 50000 | 0000£ 0000 | 88 | 10000 - | 20000 | 88 | - 000E0 | 00090 - | 0 0 0 0 0 0 0 0 | 09000 - 12000 | - 12000 000 | 88 |
| NO OF MEASUR | +00248 | 9 | NO OF HEASUR | +60242 | NO OF MERSIN | g | 44600 | NO OF MEASURE | | +00341 | ON OF MEASURE | AE Acted | +00343 |
| |) | ! | | | | ; | | 3 | - | | 2 | | 2470 |
| MEAN [X10E-2] | +07397 | MEAN | (X10E-2) | +05669 | MEAN [X] | [X10E-3] | +01280 | MEAN | [X10E-43 | +00746 | HEAN | (X10E-53 | +01993 |
| SIGHA TX10E-21 | +11295 | SIGMA | [X10E-2] | 89090÷ | STOWN CX1 | [X10E-3] | +01399 | SIGMA | [X10E-4] | +00749 | SIGHA | [X10E-5] | +01707 |
| | | | | | | | | | | | | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

GARMISCH (VALLEY 740 M) TABLE: 87

| HIGH) |
|--|
| (VERY |
| 1. SEC |
| G/CM. |
| >1000 |
| MANK |
| AND |
| VALLEY |
| IT BETWEEN |
| NGE COEFFICIENT BETWEEN VALLEY AND WANK >1000 G/CM. SEC (VERY HIGH |
| EXCHANGE |
| PARAMETER= |

| | | ٠ | | , | j | | | | |
|---|-----------|--------------------------------|-----------------------|----------------------------|-----------------------|------------------|-----------------------|----------------------------|-----------------------|
| | | | | | | | | | |
| D1 = 0.23 HI | 02 | = 0.45 MI | | D3 = 0. 93 HI | | D4 = 2.00 MI | | DS = 4. 50 HI | |
| CY) | 91 838 | . 9 | | . GP 838 | | | | 971 · 971 S38 | |
| | | | | | | | | | |
| FARTICL. CONC. FREGUENCY (X10E-2) [1/10 X] | | PARTICL. CONC. F [X10E-2] [| FREQUENCY (1/10 x) | PARTICL. CONC. [X10E-3] | FREGUENCY [1/10 X] | PARTICL. CONC. F | FREGUENCY [1/10 %] | PARTICL. CONC. EX10E~53 | FREQUENCY [1/10 %] |
| 680 O0 <u>2</u> 00 > | | 00200 > | 070 | 00120 | 960 | 00020 | 071 | < 00200 | 028 |
| - 01000 | 8 | 01000 | 127 | 00150 - 00300 | | 00020 - 00100 | 042 | 00200 - 00400 | |
| - 01200 | _ | 1 | 113 | ı | _ | ı | 128 | ı | |
| 01500 - 02500 039 | 01500 | 02300 | 083 | 00450 - 00600 | 117 | 00150 - 00200 | 078 050 | 00600 - 00800 | 114 |
| | _ | | 2 | | | | } | | |
| 00000 - | _ | • | 690 | ı | | ı | 057 | ı | _ |
| - 03200 | _ | ı | 033 | 1 | | ı | 028 | • | |
| 03500 - 04000 062 | 03200 | - 04000 | 021 | 01050 - 01200 | 000 | 00350 - 00400 | 020 | 01400 - 01600 | 057 |
| 00090 | _ | 1 | 023 | 1 | | | 0.57 | 1 | |
| | | | | | | | } | | |
| - 02000 | _ | ı | 020 | 1 | | ı | 057 | i | |
| 07000 - 08000 041 | _ | 1 | 028 | 1 | | 1 | 028 | 1 | 020 |
| 1 10000 | 00000 | 1 1 | 900 | 00800 - 00000 | 1100 | 00800 - 00800 | 250 | 02200 - 03200 | |
| - 25000 | | | 0.08 | 1 | | | 020 | ı | |
| | | | | | | | | | |
| 40000 | | ı | 021 | • | • | ı | 000 | 1 | |
| 40000 - 60000 020 40000 - 60000 | 70000 | 00000 | E S | 04000 - 06000 | | 01500 - 02000 | 030 | 02000 - 02000 | 028 |
| 100000 | _ | , | 88 | | | 1 | 38 | | |
| 0000 | : | 8 | 8 | 0000 | | 0003 | 000 | 2000 | |
| NO OF PEASUR +00145 | _ | NO OF MERSIE | +00141 | AN OF MEASUR | 1001 | NO OF MEASUR | +00140 | ALCO OF MEGSTR | +00140 |
| | _ | | • | | | | | | |
| MEAN [X10E-2] +07681 | 11 HEAN | [X10E-2] | +04931 | MEAN (X10E-31 | 1 +01091 | MEAN [X10E-4] | +00004 | MEAN [X10E-5] | 13 +01696 |
| 810MA (X10E-21 +10737 | NOIS 7 | 1 (X10E-23 | +05517 | SIGMA [X10E-3] | 99110+ (| SIGMA [X10E-4] | 00900+ | SIGHA (X10E-5) | 11 +01462 |
| | | | | | | | | | |
| | | | | | | | | | |

PERIOD: 1970-1980 WANK PEAK 1780 M TABLE: 88

PARAMETER = EXCHANGE COEFFICIENT BETWEEN VALLEY AND WANK <5 G/CM. SEC (VERY LOW)

| 0 * | 0. 23 HI | | D2 = 0. | 0. 45 HI | • | D3 = 0. 93 | 93 HI | | D4 = 2. | 2. 00 MI | | 05 = 4 | = 4.50 MI | |
|---|--|---------------------------------|---|---|--|---|--|---------------------------------|---|---|---------------------------------|---|---|---------------------------------|
| RES. NR. : | 312 | | RES. NR. : | 313 | | RES. NR. : | 314 | | RES. NR. : | 313 | | RES. NR. : | 316 | |
| PARTICL. CONC. TX10E-23 | | FREGUENCY [1/10 X] | PARTICL. CONC. [X10E-2] | | FREGUENCY [1/10 X] | PARTICL. CONC. [X10E-3] | _ | FREGUENCY [1/10 X] | PARTICL. CONC. [X10E-4] | - | FREGUENCY | PARTICL. CONC. [X10E-5] | | FREQUENCY |
| <pre></pre> | 00400 00600 00800 01000 | 120 120 057 043 | 0010000100002000030000400 | 100 - 00200 - 00300 - 00400 - 00500 | 175 082 073 039 | <pre></pre> | 25 - 00050 - 00076 - 00100 - 00150 | 033 042 057 066 152 | C 00025 00025 - 00050 - 00076 - | 225 - 00050 - 00076 - 00100 - 00125 | 057 129 100 072 | C 00025 00025 - 00050 - 00076 - 00100 - |)25 - 00050 - 00076 - 00100 - 00125 | 004 019 024 024 |
| 01000 01200 01400 01600 | 01200 01400 01600 01800 | 062 053 019 019 | 00500 00600 00750 01000 01500 | - 00600 - 00750 - 01000 - 01500 | 034 058 048 073 | 00150 00200 00250 00350 00350 | - 00200 - 00250 - 00300 - 00350 | 061 080 057 038 | 00125 00150 00175 00200 00250 | - 00150 - 00175 - 00200 - 00250 | 062 067 057 052 028 | 00125 00150 00175 00200 00250 | - 00150 - 00175 - 00200 - 00250 | 019 034 059 148 108 |
| 02000 02500 03000 04000 | 02500 03000 03500 04000 | 067 067 043 057 048 | 02000 02500 03000 04000 | - 02300 - 03000 - 04000 - 05000 | 000 000 000 000 000 000 | 00400 00450 00500 00600 | 00430 00500 00500 00700 01000 | 028 028 052 038 | 00300 00350 00400 00430 00500 | - 00350 - 00400 - 00450 - 00500 | 043 038 028 033 | 00350 00450 00450 | - 00350 - 00400 - 00450 - 00500 | 000 049 059 054 059 |
| 05000 - 06000 - 08000 - 10000 - > 15000 | 06000 - 08000 - 10000 - 15000 | 019 033 004 000 | 07000 - 09000 - 12000 - 15000 - > 20000 | - 09000 - 12000 - 15000 - 20000 | 019 034 029 000 | 01000 - 01500 - 02000 - 03500 - > 06000 | - 01500 - 02000 - 03500 - 06000 | 042 038 061 000 | 00600 00700 01000 02000 > 04000 | - 01000 - 02000 - 02000 - 04000 | 019 043 000 000 | 00600 00700 01000 02000 > 04000 | - 00700 - 01000 - 02000 - 04000 | 049 138 069 000 |
| HI OF MEASUR MEAN (XIOE SIGMA (XIOE | EASUR. [X10E-2] [X10E-2] | +00200 | NO OF MEASUR. MEAN (XIOE SIGMA (XIOE | FASUR. [X10E-2] [X10E-2] | +02136 | NO OF MENSUR MEAN (X10E SIGMA (X10E | EASUR. [X10E-3] [X10E-3] | +00210 | NO OF PEASUR MEAN [X10E SIGNA [X10E | FEASUR. [X10E-4] [X10E-4] | +00208 | NO OF MEASUR MEAN (XIOE SIGNA (XIOE | IEASUR. [X106-5] [X106-5] | +00451 |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PERIOD: 1970-1980 WANK PEAK 1780 M TABLE: 89

PARAMETER = EXCHANGE COEFFICIENT BETWEEN VALLEY AND WANK 6-10 G/CM. SEC

| DI = 0 23 MI | | D2 = 0. 45 HI | 45 HI | | D3 = 0.93 | 93 MI | | 04 = 2. | 2. 00 HI | | 8 | - 4.50 MI | |
|------------------------------|-----------------------|----------------------------|----------|-------------|----------------------------|-------------|-----------------------|----------------------------|----------|-----------------------|----------|----------------------------|-----------------------|
| KES. NR. : 357 | | RES. NR. : | 328 | | RES. NR. : | 3 26 | | RES. NR. : | 360 | | RES. NR. | 198 | |
| PARTICL. CONC. F. LX10E-23 L | FREGUENCY [1/10 %] | PARTICL. CONC. (X10E-21 | | FREGUENCY | PARTICL, CONC. [X10E-3] | _ | FREGUENCY [1/10 %] | PARTICL. CONC. EXIOE-43 | | FREGUENCY [1/10 X] | PARTIC | PARTICL. CONC. EXIOE-53 | FREGUENCY [1/10 %] |
| < 00200 | 123 | < 00100 00100 | 001 | 147 | < 00025 | • | 082 | < 00025 | | 131 | < 00025 | | |
| 1 | 911 | 00700 | 00000 | 133 | 00020 | 92000 - | 087 | 00023 | - 00076 | 111 | 00073 | 92000 - 1 | 043 |
| i | 680 | 00:00 | - 00400 | 028 | 92000 | - 00100 | 075 | 9000 | - 00100 | 131 | 9000 | - 00100 | |
| 00800 - 01000 | 190 | 00400 | - 00300 | 105 | 00100 | - 00120 | 095 | 00100 | - 00125 | 041 | 00100 | - 00125 | 920 |
| ı | 034 | 00200 | 00900 - | 014 | 00120 | - 00200 | 093 | 00125 | - 00120 | 034 | 00125 | - 00150 | 029 |
| 1 | 047 | 00900 | - 00750 | 049 | 00200 | - 00250 | 047 | 00120 | - 00175 | 034 | 00120 | - 00175 | |
| ı | 034 | 00220 | - 01000 | 042 | 00220 | - 00300 | 082 | 00175 | - 00200 | 048 | 90175 | - 00200 | |
| ı | 2 | 01000 | - 01200 | 112 | 00:00 | - 00320 | 034 | 00200 | - 00250 | 9/0 | 00200 | - 00220 | |
| 01800 - 02000 | 024 | 01200 | - 02000 | 690 | 00320 | - 00400 | 020 | 00220 | - 00300 | 053 | 00250 | - 00300 | |
| 02000 - 02500 | 047 | 02000 | - 02500 | 021 | 00400 | - 00450 | 020 | 00300 | - 00320 | 041 | 00300 | - 00320 | 070 |
| ł | 027 | 05200 | - 03000 | 021 | 00450 | - 00200 | 027 | 00320 | - 00400 | 000 | 00320 | 00400 | |
| ı | 047 | 03000 | - 04000 | 043 | 00200 | - 00600 | 634 | 00400 | - 00450 | 0:34 | 00400 | - 00450 | |
| 1 | 027 | 04000 | - 05000 | 049 | 00900 | - 00200 | 034 | 00450 | - 00200 | 013 | 00420 | - 00200 | |
| 04000 - 05000 | 041 | 03000 | - 07000 | 070 | 00200 | 00010 - | 990 | 00:200 | 00900 - | 048 | 00200 | 00900 - | 078 |
| 02000 - 00000 | 020 | 00020 | - 09000 | 021 | 00010 | - 01500 | 075 | 00900 | - 00700 | 070 | 00900 | - 00200 | 049 |
| , | 041 | 00060 | - 12000 | 021 | 00210 | - 02000 | 041 | 90700 | - 01000 | 034 | 00200 | - 01000 | |
| į | 070 | 12000 | - 15000 | 200 | 07000 | - 03200 | 900 | 00010 | - 02000 | 900 | 01000 | - 02000 | |
| 10000 - 12000 | 8 | 2000 | - 20000 | 9 9 9 | 03300 | 00070 - | 000 | 02000 | - 04000 | 8 | 02000 | 1 04000 | |
| > 15000 | 8 | > 20000 | 000 | 000 | 00090 < | 8 | 000 | > 04000 | 000 | 900 | > 04000 | 000 | 000 |
| NO OF MEASUR. | +00146 | NO OF MEASUR | EASUR. | +00142 | NO OF H | MEASUR. | +00146 | 10 SE | MEASUR. | +00144 | NO 64 | MEASUR. | +00141 |
| MEAN [X10E-2] | +01772 | MEAN | [X10E-2] | +01793 | MEAN | [X10E-3] | +00408 | MEAN | (X10E-4) | +00192 | HEAN | [X10E-5] | +00375 |
| SIGM [X10E-2] | +02018 | SIGHA | CX10E-23 | +02442 | STUMA | [X10E-3] | +00436 | STUMA | [X10E-4] | +00211 | SIGMA | [X10E-51 | +00303 |
| | | | | | | | | | | | | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

-

WANK PEAK 1780 M TABLE: 90

PER10D : 1970-1980

| HES NR 367 HES NR 369 HES NR 369 HES NR 369 HES NR 367 HES NR 367 HES NR 367 HES NR 369 HES NR 367 HES NR 367 HES NR 367 HES NR 367 HES NR 369 HES NR 367 HES | PARAMETER= | | XCHANG | 303 3 | EXCHANGE COEFFICIENT | | EN VAL | BETWEEN VALLEY AND | MANK | 11-25 | G/CM. SEC | ည္ | | | |
|--|-------------|-------------------------|---|-------------------------|-------------------------------|-------------------|-------------------------|--------------------|-------------------|-------------------------|--------------------|---------------------|----------------------------------|--------------------|-----------------------|
| FRES.NR. 368 RES.NR. 369 RES.NR. 369 RES.NR. 370 RES.NR. RES.NR. 369 RES.NR. 370 RES.NR. RES.NR. 369 RES.NR. 369 RES.NR. 369 RES.NR. 370 RES.NR. 370 RES.NR. RES.NR. 369 RES.NR. 370 RESNR. 370 RESNR. 370 RESNR. 370 37 | | Ī | | | 45 MI | | | 73 MI | <u> </u> | B | 00 MI | | 05 = 4.50 | 50 MI | |
| FREQUENCY CANAL | | 367 | | RES. NR. | | | RES. NR. | | | RES. NR. | | | RES. NR. : | 176 : | |
| 1200 073 < 00100 | PARTICL. CO | | QUENCY 10 %1 | PARTICI CX IC | T - | | PARTICL. CX10 | _ | REGUENCY | PARTICL (X10 | _ | REGUENCY 1/10 %3 | PARTICL. CONC. [X10E-5] | _ | FREGUENCY [1/10 %] |
| - 00500 | 0020 | | 075 | 8 | | 111 | 000 > | | 052 |))))) | | 115 | < 00025 00035 | 25 | 600 |
| - 00800 034 00300 - 00400 038 00076 - 00100 033 00300 - 00400 038 00076 - 00100 - 00100 - 00100 00000 - 00100 00000 - 00100 00000 - 00100 00000 - 00100 001000 - 00100 - 00100 - 00100 | 1 1 | 00400 | 0 | 00100 00200 | | 101 | | | 048 | 00020 | | 201 | 00020 | _ | 024 |
| - 01200 065 00500 - 00500 - 00500 062 028 00200 - 00250 067 00150 - 00175 024 00150 072 01400 042 00500 023 00750 - 01000 083 00250 - 00300 038 00175 - 00200 097 00175 001000 039 00175 - 01000 025 01000 025 01000 082 00300 072 00300 0675 - 01000 025 01000 025 01000 025 01000 025 01000 025 01000 025 01000 025 01000 022 01000 025 01000 0200 02 | 1-1 | 00800 | 084 | 00300 | | 038 | 00076 | - 00100 | 033 | 00076 | - 00100 - 00125 | 053 043 | 00076 | - 00100 | 049 034 |
| - 01400 042 00600 - 00750 028 00250 - 00250 067 00175 - 00175 0220 | 1 | 01200 | 992 | 00200 | - 00900 | 062 | 00120 | - 00200 | 043 | 00125 | - 00150 | 072 | 00125 | - 00150 | 039 |
| - 01800 056 01000 - 01500 082 00300 - 00350 - 00400 033 00250 - 00250 - 00300 053 00250 - 00250 - 00300 053 00250 - 00300 053 00250 - 00300 053 00250 - 00300 053 00250 - 00300 053 00250 - 00300 053 00250 - 00300 053 00250 - 00300 053 00250 - 00300 053 00250 - 00300 053 00250 - 00300 053 00250 - 00300 053 00250 - 00300 053 00250 - 00300 053 00250 - 00400 - | 1 1 | 01400 | 275 | 00600 | - 00750 | 028 | 00200 | - 00250 | 067 | 00150 00175 | - 00200 | 024 | 00130 00173 | - 00200 | 0.05 |
| - 0.2500 103 0.2000 - 0.2500 0.43 0.0450 - 0.0450 < | 1 1 | 01800 | 056 028 | 01000 | - 01500 | 082 | 00300 | | 067 | 00200 00250 | - 00250 | 057 | 00200 00250 | - 00250 - 0030q | 034 079 |
| - 03500 051 02500 - 03000 033 000500 - 00000 043 00450 - 00400 024 00350 - 00400 051 002500 - 04000 033 00500 - 00000 043 00400 - 00450 024 00400 051 00400 - 04000 0 033 00500 - 04000 042 00400 - 05000 042 00400 - 05000 042 00500 - 05000 042 00500 - 05000 042 00500 - 05000 042 00500 - 05000 042 00500 - 05000 | 02000 - | 02500 | 103 | 02000 | - 02300 | 043 | 00400 | - 00450 | 019 | 00300 | - 00320 | 033 | 00300 | - 00320 | 109 |
| - 03500 051 03000 - 04000 053 00500 - 07000 045 0 - 05000 033 00500 - 07000 045 0 - 00500 033 00500 - 07000 045 0 - 07000 052 00700 045 0 - 00500 033 00500 - 05000 - 07000 - | 02500 - | 0.3000 | 150 | 02500 | 03000 | 860 | 00450 | 00500 | 600 | 00320 | - 00400 | 024 | 00320 | - 00400 | 054 |
| - 06000 032 07000 - 09000 038 01000 - 01500 072 00600 - 01000 038 00700 - 01000 038 00700 - 01000 038 00700 - 01000 038 02000 - 03500 043 01000 - 02000 072 01000 072 01000 0 000 000 000 0 0 000 0 0 0 0 0 | 1 1 1 | 03500 04000 05000 | 051 046 042 | 03000 04000 05000 | - 05000 - 05000 - 07000 | 033 038 062 | 00500 00600 00700 | - 00000 - 01000 | 043 019 134 | 00400 00450 00500 | - 00500 | 98 033 038 | 00 00 00 00 00 00 00 00 | 00200 - | 040 049 |
| - 09000 037 09000 - 12000 028 01500 - 02000 038 00700 - 01000 038 00700 - 01000 038 00700 - 01000 038 00700 - 01000 038 00700 - 01000 038 00700 - 01000 038 00700 - 01000 038 00700 - 01000 038 00700 000 038 00700 - 02000 072 01000 0500 000 0500 000 0500 0 000 05000 000 0500 000 0500 000 0500 000 0500 000 0500 000 05000 00 | 03000 | 04000 | 033 | 02000 | 00060 | 038 | 0100 | 01500 | 07.2 | 00900 | - 00200 | 024 | 00900 | - 00700 | 029 |
| - 15000 014 12000 - 15000 038 02000 - 03500 043 01000 - 02000 072 01000 0500 000 0500 0 000 05000 0 000 0 000 0 000 0 000 0 000 0 000 0 | 06000 | 00060 | 037 | 00060 | - 12000 | | 01200 | - 02000 | 980 | 00200 | 00010 - | 980 | 00200 | - 01000 | 690 |
| NO OF MEASUR. | 10000 | 15000 | 410 | 12000 | | | 02000 | | 000 | 07000 | | 000 | 02000 | _ | 000 |
| HEASUR | > 15000 | | 000 | > 20 | 8 | 900 | 090 < | 8 | <u> </u> | ^ 0 4 € | 000 | 000 | ₹ ^ | 3 | 9 |
| CK10E-21 +01998 MEAN CK10E-21 +02460 MEAN CK10E-31 +00518 MEAN CK10E-41 +00.283 CK10E-21 +01920 >10MA CK10E-21 +03442 \$10MA CK10E-31 +00628 \$10MA CK10E-41 +00354 | | | 00213 | | MEASUR. | +00207 | | EASUR. | +00200 | | KEASUR. | +00200 | | MEASUR. | +00201 |
| [XIOE-2] +01920 710MA [XIOE-2] +03442 SIGMA [XIOE-3] +00628 SIGMA [XIOE-4] +00354 | | | 86610 | MEAN | [X10E-2] | +02460 | MEAN | (X10E-33 | +00218 | MEAN | [X10E-4] | +00283 | MEAN | [X10E-5] | +00478 |
| | | | 01920 | TIONA | [X10E-2] | +03442 | | [X10E-3] | +00628 | SIGMA | [X10E-4] | +00354 | SIGMA | [X10E-5] | +00427 |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PERIOD: 1970-1980 WANK PEAK 1780 M TABLE: 91

| PARAMETE | PARAMETER= EXCHANGE | OE COE | COEFFICIE | ENT BETW | BETWEEN VALLEY | LLEY A | AND WANK | 1 | 26-50 G/CM. SEC | EC | | | |
|----------------------------|---------------------|------------------|--|-----------------------|----------------------------|--------------------|-----------------------|----------------------------|-----------------|-----------|--|------------------|-----------------------|
| | | | | | | | | | | | | | 1 |
| D1 = 0.23 MI | | D2 = 0. 45 MI | 43 HI | | B3 = 0.93 MI | 93 MI | | D4 = 2. | 2. 00 MI | | 55 4 | 4. 50 MI | |
| RES. NR. : 377 | | RES. NR. | 378 | | RES. NR. | 379 | | RES. NR. : | 380 | | RES. NR. | 391 | |
| PARTICL. CONC. TX10E-21 | FREQUENCY | PARTICL. CONC. | | FREGUENCY [1/10 %] | PARTICL. CONC. [X10E-31 | | FREGUENCY [1/10 %] | PARTICL. CONC. (X10E-41 | | FREGUENCY | PARTIC EX1 | PARTICL. CONC. F | FREGUENCY [1/10 %] |
| < 00200 | 050 | 00100 C 00100 | 8 | 980 | < 00025 | . 52. | 890 | < 00025 | 25 | 116 | < 00025 | 025 | 000 |
| 1 | | 00100 | - 00200 | 120 | 00025 | - 000050 | 056 | 00025 | - 000050 | 989 | 00025 | - 000050 | 017 |
| | | 00200 | 00:300 | 057 | 000050 | - 00076 | 056 | 00000 | - 00076 | 880 | 00020 | - 00076 | 011 |
| 00800 - 01000 | 00 084 | 200 | 00000 | 057 | 00100 | - 00100 - 00150 | 096 096 | 90100 | - 00100 | 080 | 8 00 00 00 00 00 00 00 00 00 00 00 00 00 | - 00100 | 0 4 8 |
| 00010 | | 30 | | , | | | | | | | | | |
| ! | | 0000 | - 100000 - 1000000 - 1000000000000000000 | 0 0 4 4 0 | 00700 | - 00250 | F/0 | 02100 | - 00135 | 082 | 000 | 1 00150 | 0.00 |
| 1 | | 00730 | 00000 | 034 | 00250 | - 00300 | 034 | 00175 | - 00200 | 044 | 80173 | - 00200 | 051 |
| 1 | | 00010 | - 01500 | 057 | 00000 | - 00320 | 045 | 00200 | - 00250 | 033 | 00200 | - 00250 | 045 |
| 01800 - 02000 | 90 039 | 01200 | - 02000 | 890 | 00320 | - 00400 | 022 | 00220 | - 00300 | 044 | 00220 | - 00300 | 051 |
| 02000 - 02500 | 290 00 | 02000 | - 02200 | 1110 | 00400 | - 00450 | 028 | 00300 | - 00350 | 990 | 00300 | - 00320 | 890 |
| 1 | 680 00 | 02200 | 03000 | د | 20450 | - 00200 | 034 | 00320 | - 00400 | 011 | 00350 | - 00400 | 062 |
| 1 | | 03000 | - 04000 | 074 | 0020 | - 00900 | 056 | 00400 | - 00450 | 027 | 00400 | - 00450 | 030 |
| i | | 04000 | - 02000 | 045 | 00900 | - 00200 | 056 | 00450 | - 00200 | 022 | 00450 | - 00500 | 034 |
| 04000 - 02000 | 00 044 | 02000 | - 02000 | 097 | 00200 | 00010 - | 890 | 00200 | 00900 - | 033 | 00200 | 00900 - | 082 |
| 02000 - 06000 | 00 022 | 00000 | - 09000 | 057 | 01000 | - 01500 | 039 | 00900 | - 00200 | 038 | 00900 | - 00200 | 062 |
| 00080 - 00030 | | 00060 | - 12000 | 045 | 01200 | - 02000 | 085 | 00200 | - 01000 | 071 | 00200 | - 01000 | 131 |
| 1 | | 12000 | - 15000 | 017 | 05000 | - 03500 | 062 | 00010 | - 02000 | 044 | 00010 | - 02000 | 601 |
| 10000 - 12000 | | 15000 | | 000 | 03200 | 00090 - | 000 | 02000 | - 04000 | 000 | 0.2000 | - 04000 | 003 |
| 2 15000 | 000 | > 20000 | 8 | 000 | 00090 < | 00 | 000 | > 04000 | 00 | 000 | > 0400 | 0 0 | 000 |
| NO OF MEASUR | +00178 | NO OF MEASUR. | EASUR. | +00174 | NO OF | MEASUR. | +00178 | NO OF MEASUR | EASUR. | +00181 | N 0 | MEASUR. | +00175 |
| MEAN [X10E-2] | 23 +02153 | MEAN | [X10E-2] | +02707 | MEAN | [X10E-3] | +00286 | MEAN | [X10E-4] | +00293 | MEAN | [X10E-5] | 11500+ |
| SIGMA [X10E-2] | 21 +02028 | STGMA | [X10E-2] | +03241 | STOPA | [X10E-3] | £6900+ | STUMA | [X10E-0 | +00365 | SIGMO | [X10E-5] | +00413 |
| | | | | | | | | ļ | | | | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

TABLE: 92 WANK PEAK 1780 M

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| CHANGE COEFFICIENT BETWEEN VALLEY AND WANK 51-100 G/CM. SEC | |
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|-------------------|---------------------|---|--|----------|--|----------------|---|---|--|--|--|--|---|
| | | | | | | | | | | | | | |
| 0. 23 HI | | D2 = 0. | 45 HI | | D3 = 0 | 93 Hf | | 04 = 2. | 00 MI | | . E | 30 MI | |
| 337 | | RES. NR. | 88 | | RES. NR. | . 389 | | RES. NR. | 390 | | RES. NR. | 391 | |
| PARTICL, CONC. FF | REQUENCY 1/10 X1 | PARTICL [X10 | • | REGUENCY | PARTICI | | REGUENCY 1/10 X1 | PARTICI [X10 | | REQUENCY 1/10 X3 | PARTICI CX1C | | FREGUENCY [1/10 X] |
| < 00200 | 032 | , 100 | 8 | 490 | × | 25 | 043 | 700 | . 52 | 107 | > × | 25 | 000 |
| 00400 | 033 | 00100 | - 00200 | 950 | 00025 | | 280 | 00025 | _ | 129 | 00025 | | 910 |
| 00900 | 033 | 00200 | 00300 | 078 | 0000 | 92000 - | 920 | 00020 | - 000076 | 118 | 00020 | - 00076 | 033 |
| 00800 | 075 | 00300 | - 00400 | 027 | 9000 | 00100 | 640 | 00076 | 00100 | 990 | 92000 | 00100 | 66:0 |
| 200 | 701 | 20400 | - 00300 | 010 | 00100 | 00120 | 082 | 8000 | - 00125 | 032 | 0000 | - 00125 | 044 |
| 01200 | 037 | 00200 | - 00900 | 027 | 00120 | - 00200 | 049 | 00125 | - 00150 | 037 | 00125 | - 00150 | |
| 01400 | 048 | 00900 | - 00750 | 064 | 00500 | - 00250 | 027 | 00120 | - 00175 | 021 | 00120 | - 00175 | 027 |
| 01600 | 043 | 00750 | - 01000 | 020 | 00230 | - 00300 | 043 | 00175 | - 00200 | 021 | 00175 | - 00200 | 044 |
| 01800 | 970 | 01000 | - 01200 | 113 | 00300 | - 00320 | 043 | 00700 | - 00250 | 053 | 00500 | - 00220 | 083 |
| 07000 | 037 | 01200 | - 02000 | 037 | 00320 | - 00400 | 860 | 00220 | - 00300 | 032 | 00220 | - 00300 | 020 |
| 02300 | 102 | 02000 | - 02200 | 075 | 00400 | - 00450 | 980 | 00300 | - 00320 | 026 | 00000 | - 00320 | 078 |
| 03000 | 190 | 02500 | 00000 | 027 | 00420 | - 00200 | 032 | 00320 | - 00400 | 043 | 00320 | - 00400 | 033 |
| 03200 | 960 | 00000 | - 04000 | 029 | 00200 | 00900 - | 049 | 00400 | - 00450 | 033 | 00400 | - 00450 | 1% |
| 04000 | 021 | 04000 | - 02000 | 064 | 00900 | - 00700 | 032 | 00450 | - 00200 | 026 | 00430 | - 00200 | 039 |
| 000ç 0 | 032 | 02000 | - 02000 | 075 | 00200 | - 01000 | 1 660 | 00200 | - 00900 | 029 | 00200 | - 00900 | 6 40. |
| 06000 | 7 960 | 00020 | - 09000 | 043 | 01000 | 00510 | 600 | 00900 | - 00200 | 640 | 0000 | 00200 - | 033 |
| 00080 | 920 | 00060 | - 12000 | 081 | 01300 | - 02000 | 920 | 00200 | 000010 | 690 | 00200 | - 01000 | 136 |
| 00001 | 043 | 12000 | - 15000 | | 05000 | - 03200 | 090 | 01000 | - 02000 | 080 | 00010 | - 02000 | 136 |
| _ | ဇ္ဇ | 15000 | - 20000 | 000 | 03200 | 00090 | 000 | 02000 | - 04000 | 8 | 05000 | - 04000 | 000 |
| > 15000 | 8 | > 200 | 000 | 000 | 90 < | 000 | 000 | Ť0 ^ | 000 | 000 | 5 0 ^ | 8 | 000 |
| HO OF MEASUR. | +00186 | NO OF P | EASUR. | 100185 | NO OF | TEASHR. | +00182 | NO CF | HEASUR. | +00186 | NO 04 | EASUR | +00179 |
| [X10E-2] | +02563 | MEAN | (X10E-2) | +03262 | HEAN | [X10E-3] | +00016 | HE SA | [X10E-4] | +00338 | HEPN | [X10E-5] | +00226 |
| [X10E-2] | +02234 | SIGNA | [X10E-2] | +03690 | SIGMA | f x 10E-31 | +00721 | STING | (X10E-4) | 400400 | STONE | (x10E-3) | +00480 |
| | | | | | | | | | | | | | 1 |
| | | 7 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | FREQUENCY (1/10 X1) (1/10 X1) | I | FREQUENCY RES. NR. : 388 L1/10 X1 L1/10 X1 LX10E-21 L1/10 X1 L1/10 X1 LX10E-21 L1/10 X1 L1/10 X1 LX10E-21 L1/10 X1 LX10E-21 LX10 | RES. NR. : 388 | The content of the | The color The | PRESULENCY PARTICL. CONC. FREGUENCY FREGUENCY LIVIO X1 LIVIOE-21 LIVIO X2 LIVIOE-31 LIVIO X3 LIVIOE-31 LIVIOE-31 LIVIO X3 LIVIOE-31 LIVIO X3 LIVIOE-31 LIVIO X3 LIVIOE-31 LIV | The color of the | The column The | The column The | The color The |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

WANK PEAK 1780 M TABLE: 93

PERIOD: 1970-1980

PARAMETER = EXCHANGE COEFFICIENT BETWEEN VALLEY AND WANK 101-500 G/CM. SEC

| DI = 0.23 MI | | 02 = 0.45 | 45 H | | D3 # 0. | . 93 MI | | D4 = 2 | 2. 00 MI | | DS = 4, 50 HI | 30 MI | |
|---------------------------|-----------------------|---|------------|------------|----------------|----------|-------------|---------------|---|-----------------------|----------------|----------|-----------------------|
| RES. NR. : 397 | | RES. NR. | 388 | | RES. NR. : | 399 | | RES. NR. : | 400 | | RES. NR. : | . 401 | |
| FARTICL. CONC [X10E-2] | FREQUENCY | PARTICL. CONC. CX10E-21 | 7.0 | REQUENCY | PARTICL. CONC. | _ | FREQUENCY | PARTIC EXI | PARTICL, CONC. F | FREQUENCY (1/10 X1 | PARTICL. COND. | _ | FREQUENCY [1/10 X] |
| Ñ | | \$ 00100 \$ 00100 | | 090 | \$ 00025 | | 083 | < 00025 | | 074 | 8 | | 8 |
| 00900 - 00900 | | 8 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 | 00300 | 0.0 | 00020 | - 00076 | 0 0 4 90 | 00020 | - 00030 | R 88 | 05000 | 92000 | 018 |
| 00010 - 00000 | 00 00 00 095 | 00300 00400 | 1 00400 | 046 027 | 00076 | - 00100 | 074 | 00076 | - 00100 | 084 056 | 00076 | - 00100 | 041 |
| 90100 | 8 | 200 | 7000 | | 9 | 00000 | 1 | | | | | 000 | 2 |
| 1 | | 0090 | - 00230 | 050 | 00200 | 00220 | | 02100 | 1 | 037 | 00100 | 90130 | 0.00 |
| ı | | 00750 | - 01000 | 090 | 00220 | - 00300 | 064 | 00175 | - 00200 | 051 | 00175 | - 00200 | |
| ı | | 01000 | - 01500 | 078 | 00300 | - 00320 | 023 | 00500 | - 00220 | 070 | 00200 | - 00220 | |
| 01800 - 03000 | 00 042 | 01500 | - 02000 | 087 | 00320 | - 00400 | 023 | 00220 | 00300 | 032 | 00250 | - 00300 | 050 |
| 02000 - 02500 | | 02000 | - 02200 | 020 | 00400 | - 00450 | 027 | 00300 | 00350 | 028 | 00000 | - 00320 | 073 |
| , | | 02200 | - 03000 | | 00450 | - 00200 | 023 | 00320 | - 00400 | 032 | 00320 | - 00400 | 064 |
| ı | | 03000 | - 04000 | 690 | 00200 | 00900 - | 090 | 00400 | - 00450 | 120 | 00400 | 00450 | 077 |
| 03500 - 04000 | 820 | 0000 | 03000 | 046 | 00000 | 00200 | 032 | 00430 | - 00200 | 032 | 00450 | 00200 | 043 |
| | | 3 | | 0,0 | 3 | 0000 | 740 | 3 | 8000 | 9 | 2003 | 2000 | |
| , | | 00000 | - 00000 | 020 | 01000 | - 01500 | 083 | 00900 | - 00700 | 032 | 00900 | - 00700 | 770 |
| 1 | | 00060 | - 12000 | | 01200 | - 02000 | 046 | 00200 | - 01000 | 090 | 00200 | - 01000 | 105 |
| ŀ | | 12000 | 12000 | | 02000 | 03200 | ₩90 | 0000 | - 05000 | 026 | 0000 | - 02000 | 160 |
| 00001 - 00001 | 3 3 | 000 | 20000 - | 000 | 03200 | 00090 - | 000 | 02000 | - 04000 | 000 | 05000 | 04000 | 600 |
| mart / | 3 | 7007 · | 3 | 6 | 00000 6 | 3 | 25 | 00040 | 200 | 99 | 00000 | 3 | 900 |
| NO OF MEASUR. | +00210 | NO OF MEASUR. | EASIJR. | +00216 | 750 OF | MEASUR. | +00216 | RO CH | MEASUR | +00214 | NO OF T | MEASUR | +00218 |
| MEAN [X10E-2] | 23 +02231 | HEAN | [X10E-2] | +03131 | MEAN | [X10E-3] | +00591 | MEAN | [X10E-4] | +00304 | HEAN | (X10E-53 | +00505 |
| 31690 14106-21 | 401014 | 91010 | | | - | | : | | | | | 1 | , |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PERIOD: 1970-1980 PARAMETER = EXCHANGE COEFFICIENT BETWEEN VALLEY AND WANK >1000 G/CM. SEC (VERY HIGH) WANK PEAK 1780 M TABLE: 94

| | | | | | | | | | | | | • | | |
|-----------------------------------|-----------|---------------|--------------------------------|-----------------------|----------------------------|----------|-----------------------|----------------------------|----------|-----------------------|----------------------|----------------------------|-----------------------|---|
| D1 = 0.23 MI | | D2 = 0. 45 MI | 45 HI | | B3 • 0. | 0. 93 MI | | 04 = 2. | 2. 00 HI | | 8 | - 4. 50 HI | | |
| RES. NR.: 167 | | RES. NR. : | .: 168 | | RES. NR. : | . 169 | | RES. NR. : | 170 | | RES. NR. : | 1.21 : 1.21 | | |
| PARTICL. CONC. FR [X10E-2] [1] | FREQUENCY | PARTIC CX1 | PARTICL. CONC. F [K10E-2] [| FREGUENCY [1/10 %] | PARTICL. CONC. [X10E-3] | _ | FREGUENCY [1/10 X] | PARTICL. CONC. [X10E-4] | | FREQUENCY [1/10 %] | PARTIC (XI) | PARTICL. CONC. [X10E-5] | FREGUENCY [1/10 %] | |
| 200 | 200 | 00100 > | | 033 | 8 | | 031 | 8 | | 047 | < 00025 | | | |
| 00400 - 00400 | | 9626 | 00700 | 110 | 0000 | - 00030 | 063 | 00023 | 000000 | 125 | 00023 | 05000 | 000 | _ |
| ı | 126 | 00300 | - 00400 | 910 | 92000 | - 00100 | 047 | 92000 | - 00100 | 078 | 9000 | _ | | |
| 00800 - 01000 | 047 | 00400 | - 00300 | 042 | 00100 | - 00120 | 111 | 00100 | - 00125 | 094 | 00100 00100 | - 00125 | | |
| ı | 071 | 00200 | 00900 - | 910 | | - 00200 | 620 | 00125 | - 00150 | 055 | 00125 | - 00150 | 023 | |
| 1 | 683 | 00900 | - 00750 | 020 | | - 00220 | 023 | 00120 | - 00175 | 062 | 00130 | - 00175 | | |
| 01400 - 01600 | 600 | 8 2 2 2 2 2 | 01000 | 984 | 00250 | 00300 - | 690 | 00175 | - 00200 | 047 | 20175 | - 00200 | | |
| 1 | 620 | 01200 | 00000 | 12/ | | 1 00400 | 500 | 00700 | - 002300 | 000 0 40 | 00700 | 00230 | 094 | |
| | | } | | ? | | | | 220 | | 3 | 3 | | | |
| ŧ | 111 | 02000 | - 02200 | 029 | | - 00430 | 680 | 00300 | - 00320 | 160 | 00300 | - 00320 | | |
| 0000 - 0000 | 1/0 | 02500 | 03000 | 033 | | | 031 | 00320 | - 00400 | 047 | 00320 | 1 00400 | | |
| 03200 - 03200 |) t | 0000 | 00010 | 9/0 | | 00900 - | 160 | 00400 | - 00450 | 031 | 00400 | - 00450 | | |
|) | 047 | | 1 1 | 042 | 00000 | 200 | 073 | 0000 | 0000 | 015 | 00430 | - | 660 | _ |
| | ; | | | 2 | | | 3 | 2000 | | 700 | 0000 | 1 | | |
| ı | 031 | 0000 | - 09000 | 033 | 00010 | - 01500 | 150 | 00900 | - 00700 | 039 | 00900 | - 00700 | 980 | |
| i | 0.39 | 00060 | - 12000 | 033 | | - 02000 | 047 | 00200 | - 01000 | 660 | 00200 | - 01000 | | |
| 1 | 160 | 12000 | 12000 | 800 | 05000 | - 03200 | 047 | 01000 | - 02000 | 680 | 01000 | - 02000 | | - |
| 00001 - 00001 | 88 | 0000 | 20000 | 000 | 03200 | 00090 - | 8 | 02000 | 04000 | 8 | 02000 | - 04000 | | |
| 00001 | 3 | 00007. | 8 | 8 | 00090 ^ | 8 | 8 | 0000 | 8 | 000 | > 0 4 000 | 000 | 8 | |
| NO OF MEASUR. | +00126 | NO OF MEASUR | HEASUR. | +00118 | NO OF MEASUR | EASUR. | +00126 | NO OF MEASUR | EASUR. | +00127 | NO 04 | NO OF MEASUR. | +00127 | |
| HEAN [X10E-2] | +02284 | MEAN | [X10E-2] | +02450 | MEAN | [X10E-3] | +00900 | MEAN | [X10E-43 | +00271 | HEAN | [X10E-5] | 1 +00537 | |
| SIGNA (KIOE-2) | +02064 | SIGHA | [X10E-2] | +02757 | SIGMA | [X10E-3] | +00640 | SIGMA | [X10E-4] | +00286 | STOMA | [X10E-5] | 1 +00382 | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PERIOD : 1970-1980 PARAMETER - EXCHANGE COEFFICIENT BETWEEN VALLEY AND WANK <5 G/CM. SEC (VERY LOW) ZUGSPITZE PEAK 3000 M TABLE: 95

| D1 = 0.23 MI | | D2 = 0. 45 MI | . 45 MI | | 03 = 0.5 | 0. 93 MI | | 04 = 2. | 2. 00 HI | | DS = 4. 50 | 30 HI | |
|--------------------------------|-----------|------------------|----------|-----------------------|----------------------------|------------|-----------------------|----------------------------|----------|-----------|----------------------------|-------------------------|-----------|
| RES. NR. : 317 | | RES. NR. | 318 | | RES. NR. | 319 | • | RES. NR. : | 320 | | RES. NR. : | .: 321 | |
| PARTICL. CONC. FR | FREQUENCY | PARTICL. CONC. | | FREQUENCY [1/10 %] | PARTICL. CONC. [X10E-3] | | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-4] | | FREQUENCY | PARTICL. CONC. [X10E-51 | TICL. CONC. [X10E-5] | FREQUENCY |
| 00000 > | 099 | < 00015 00015 | 015 | 048 | \$ 000 × | . 2000 | 033 | \$1000 > | 215 | 077 | < 00025 00025 | 025 | 000 |
| , | 660 | 00030 | - 00045 | | | _ | 085 | 00030 | _ | 6 | 00020 | - | |
| 00150 - 00200 00200 - 00250 | 108 | 00045 | - 00060 | 120 | 00045 | - 000060 | 057 | 00043 | - 000000 | 121 | 00076 00100 | - 00100 | 029 |
| 00220 - 00300 | 033 | 00075 | 06000 - | 052 | 0002 | 06000 | 07.2 | 00075 | 06000 - | 048 | 00125 | - 00130 | |
| ı | 074 | 06000 | - 00105 | | 06000 | - 00105 | 085 | 06000 | - 00105 | 072 | 00120 | - 00175 | |
| 00350 - 00400 | 88 | 80.00 | 00120 | 643 | 2000 | - 00120 | 083 | 00100 | - 00120 | 8 6 | 22.00 | 00200 | |
| 1 | 049 | 00130 | - 00200 | | 00120 | - 00200 | 085 | 00120 | 00200 | 88 | 00225 | - 00220 | 043 |
| ı | 680 | 00200 | - 00250 | | 00200 | - 00250 | 053 | 00200 | - 00250 | 020 | . 00250 | - 00275 | |
| 00800 - 01000 | n i | 00230 | 0000 | 680 | 00250 | 00300 | 860 | 00250 | - 00300 | 610 | 00275 | 00300 | 024 |
| | 8 | 00400 | _ | | 0000 | 00900 | 0.00 | 00400 00400 | 00900 | 920 | 00325 | 03500 | |
| ı | 024 | 00900 | - 00800 | • | 00900 | - 00600 | 043 | 00900 | - 00600 | 910 | 00320 | - 00400 | |
| ı | 044 | 00600 | - 01500 | | . 00600 | - 01200 | 400 | 00400 | - 01500 | 800 | 00400 | - 00200 | |
| 03000 - 04000 | 8 | 01500 | | | 01500 | - 02500 | 004 | 01200 | - 02500 | 019 | 00200 | - 00750 | 037 |
| 1 1 | 8 | 02000 | 1 10000 | | 00000 | 00000 | 0000 | 0000 | 00000 | 888 | 966 | - 01000 | |
| 2000 | 8 | > 10000 | | | 00001 < | | 88 | > 10000 | | 8 | > 02000 | _ | |
| NO OF MEASUR. | +00202 | NO OF | MEASUR. | +00700 | N TO CN | MEASUR. | +00200 | NO OF | MEASUR. | +00200+ | NO OF P | MEASUR. | +00200 |
| NEAN [X10E-2] | +00625 | MEAN | [X10E-2] | +00198 | MEAN | [X10E-3] | +00185 | MEAN | [X10E-4] | +00144 | MEAN | [X10E-5] | +00320 |
| SIDMA [X10E-2] | +00920 | SIGHA | [X10E-23 | +00328 | SIGMA | tx10E-33 | +00286 | SIGMA | [X10E-4] | +00283 | SIGMA | [X10E-5] | +00700 |
| | | | | | | | | | | | | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

PARAMETER BERYLLIUM 7 ON ZUGSPITZE >18 PC/CU M (VERY HIGH) GARMISCH (VALLEY 740 M) TABLE: 96

| <u> </u> | | | | | | | | | | | | | | | |
|----------|----------------------------|----------|---------------|------------|----------------------------|-----------------------|----------------------------|----------|-----------------------|----------------------------|------------|-----------------------|--------------------|----------------------------|-----------|
| | DI = 0.23 HI | IH EI | | 02 = 0 | D2 = 0. 45 HI | | D3 = 0. | 0. 93 MI | | D4 = 2. | 2. 00 MI | | 8 | # 4. 50 HI | |
| | RES. NR. : | 172 | | RES. NR. : | L: 173 | | RES. NR. : | 174 | | RES. NR. : | : 175 | | RES. NR. | .: 176 | |
| | PARTICL. CONC. [X10E-2] | | FREGUENCY | PARTIC | PARTICL. CONC. [X10E-2] | FREGUENCY [1/10 X] | PARTICL. CONC. [X10E-3] | | FREGUENCY [1/10 x] | PARTICL. CONC. [X10E-4] | | FREQUENCY [1/10 %] | PARTICA CX10 | PARTICL. CONC. [X10E-5] | FREQUENCY |
| | < 00200 | | 0.29 | 00200 × | 200 | 200 | < 00150 | 20 | 029 | < 00020 | 950 | 200 | C 00200 | 200 | 000 |
| | 00200 | 00010 | 072 | 00200 | 00010 - | | 00120 | - 00300 | 118 | 00020 | - 00100 | 030 | 00200 | - 00400 | 047 |
| _ | 01200 - | 01300 | 500 080 | 00010 | 1 02000 | 059 | 00300 | 1 00450 | 0 0 4 0 0 | 00100 | - 00150 | 037 | 96 | 00900 | 047 |
| _ | 02000 - | 02200 | 043 | 02000 | - 02500 | | 00900 | - 00750 | 074 | 00200 | - 00250 | 015 | 2000 | | |
| _ | 02200 - | 00000 | 072 | 02200 | - 03000 | 037 | 05200 | 00600 - | 020 | 00250 | - | . 037 | 2 | 01200 | 070 |
| _ | - 000E0 | 03200 | 036 | 03000 | - 03200 | | 00600 | _ | 044 | 00200 | _ | 037 | 01200 | • | |
| _ | 03200 | 0400 | 036 | 03200 | - 04000 | | 01020 | - 01200 | 037 | 00320 | - 00400 | 037 | 01400 | - 01600 | |
| | - 0000 | 02000 | 021 | 0000 | 04300 | | 01200 | - 01350 | 029 | 00400 | - 00200 | 090 | 01600 | - 01800 | 690 |
| _ | - 00000 | 00000 | 100 0 | 04200 | 00050 - | 027 | 01320 | - 01500 | 920 020 | 00200 | 00900 - | 090 | 01900 | - 02000 | 039 |
| _ | - 00090 | 00020 | 980 | 02000 | 00090 - | 029 | 01200 | - 01650 | 044 | 00900 | - 00700 | 060 | 02000 | - 02220 | 071 |
| | 07000 | 0000 | 014 | 00090 | - 02000 | | 01650 | - 01800 | 014 | 00200 | - 00800 | 083 | 02220 | - 02200 | 012 |
| _ | 00060 | 000 | . 116 | 02000 | 00080 | | 00810 | | 037 | 00800 | | 053 | 02500 | - 03000 | 082 |
| _ | 2000 | 25000 | 080 | 0000 | 00051 | 067 | 02200 | 03000 | 2 % | 00000 | - 01000 | 090 | 03200 | - 03300 | 047 |
| | | | _ | | | | | | | |) | } | | | : |
| | 25000 - | 40000 | 021 | 12000 | - 20000 | | 03000 | - 04000 | 990 | 01250 | - 01500 | 075 | 04000 | - 05000 | 690 |
| | 200 | 2000 | 170 | 2000 | 00005 | | 04000 | _ | 059 | 01200 | - 02000 | 860 | 02000 | - 02000 | 103 |
| - 4 | 0000 | | 3 | 0000 | 2000 | 66.00 | 00090 | 10000 | 074 | 02000 | 03000 - | 083 | 02000 | 00060 | 036 |
| _ | 8 | | 88 | > 50000 | - | 88 | > 20000 | 000 | 38 | - 20050 | 000 | 0 8 | - 09000 - 12000 | 000 - 000 | 38 |
| | , , | į | | - | ! | | | | | | | | | • | 1 |
| | NU UF MERSON | 50 | 16100+ | 5 2 | NO OF PERSON. | +00134 | NO OF MEASUR | EASUR. | +00133 | 25 20 20 | MEASUR | +00132 | <u> </u> | MEASUR. | +00126 |
| _ | MEAN CX | [X10E-2] | +08336 | MEAN | (X10E-2) | +09054 | MEAN | [X10E-3] | +02030 | MEAN | [X10E-4] | +01105 | MEAN | [X10E-5] | +02603 |
| <u> </u> | STOPIN CX | CX10E-21 | +09166 | SIGHA | CX10E-23 | +09215 | SIGMA | [X10E-3] | +02003 | SIGMA | CX10E-43 | +00930 | SIGMA | (X10E-5) | +01983 |
| | | | | - | | | | | | | | | - | | |
| | | | | | | 4 | | | | | | | | | |

FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

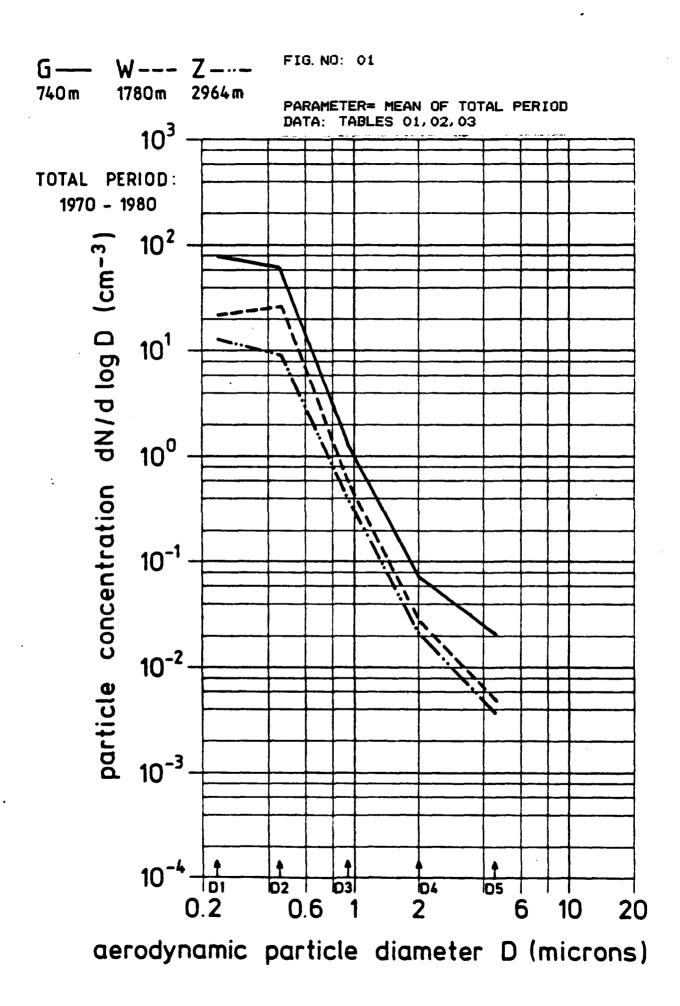
PARAMETER BERYLLIUM 7 ON ZUGSPITZE >18 PC/CU M (VERY HIGH) WANK PEAK 1780 M TABLE: 97

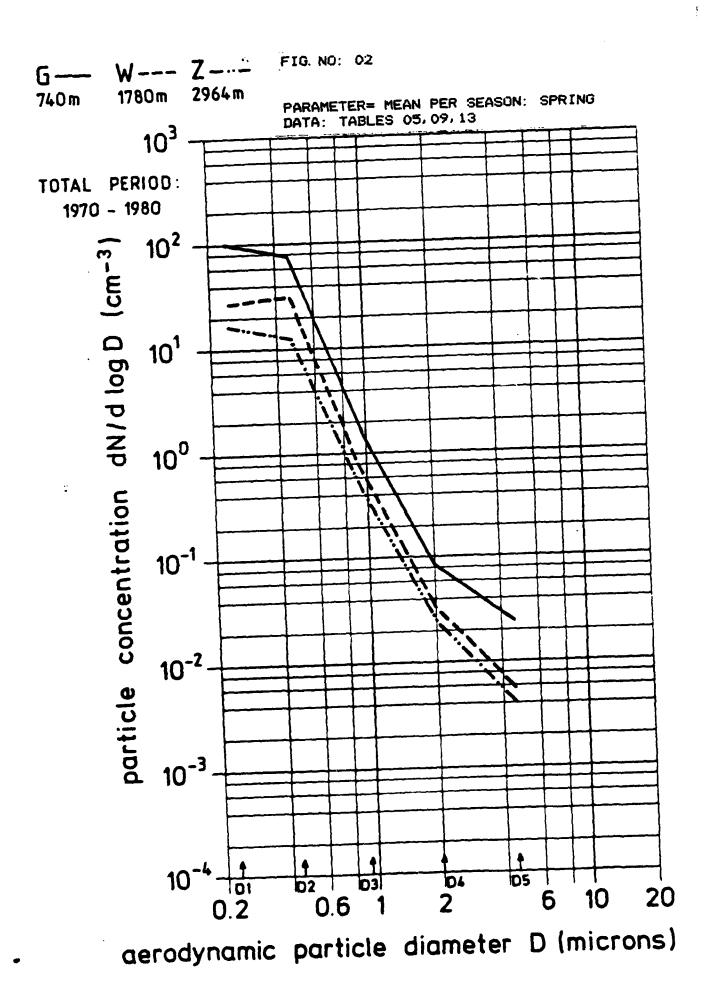
| | | | ; | | | 1 | | | ; | | | ; | |
|---|-------------------|-------------------------------|-------------------|-----------|----------------------------|-------------------------|-----------|-----------------------------|--------------------|-----------------------|----------------------------|---------------|------------------------------|
| 14 57 0 = 10 · | | 1 | 1 C C | | 10 = 0. V3 n1 | 14 FA | | 00 Z = 50 00 | Ē 3 | | 6 4 8 | Ē Q | |
| RES NR.: 177 | | RES. NR. : | : 178 | | RES. NR. | : 179 | | RES. NR. | 0 81 | | RES. NR. : | 191 | |
| PARTICL. CONC FI | FREQUENCY | PARTICL. CONC. [X10E-2] | | FREQUENCY | PARTICL. CONC. (X10E-31 | | FREGUENCY | PARTICL. CONC. (X10E-4) | | FREQUENCY [1/10 X] | PARTICL. CONC. [X10E-5] | _ | FREQUENCY |
| < 00200 00200 - 00400 | 024 | 00100 - 00100 | 100 | 072 | < 00025 00025 |)25 - 00050 | 888 | < 00025 00025 - |)25 - 00050 | 067 | < 00025 00025 - | 25 - 00050 | 8 6 0 0 |
| 00400 - 00600 | 097 | 00200 | - 00300 | 036 | 00050 | - 00076 | 039 | 00030 | - 00076 | 116 | 00030 | 00076 | 025 |
| 1 | 073 | 00400 | - 00200 | 027 | 00100 | - 00120 | 920 | 00100 | - 00125 | 000 | 00100 | - 00125 | 016 |
| 01000 - 01200 | 040 | 00200 | 00900 - | 045 | 00150 | - 00200 | 084 | 00125 | - 00130 | 030 | 00125 | - 00150 | 025 |
| 1 1 | 80 | 00220 | 000010 | 063 | 00200 | 00720 | | 00150 00175 | - 00700 | 042 | 80136 17136 | 00200 | 0.00 0.00 0.00 0.00 |
| 01600 - 01800 | 040 | 0000 | | 660 | 00300 | | 020 | 00200 | | 025 | | | 160 |
| - | 040 | 0000 | - 02000 | 060 | 00320 | - 00400 | 042 | 00220 | - 00300 | 025 | 00520 | 00300 | 072 |
| ı | 073 | 02000 | - 02500 | 027 | 00400 | - 00430 | 800 | 00300 | - 00320 | 042 | · | - 00320 | 020 |
| 02500 - 03000 | 2 2 2 2 2 2 | 03000 | 03000 | 027 | 00400 | - 00500 | 926 | 00350 | 00400 | 926 | 00330 | 00400 | 073 83 |
| 03500 - 04000 04000 - 05000 | 056 073 | 04000 | - 05000 | 090 | 00400 | - 00700 | 067 | 00450 | 00200 | 022 | 0000 | 00200 | 033 073 |
| - 00000 | 033 | 00020 | | 4 | 9 | 000 | - | 95 | 20200 | | 8 | 00,00 | 070 |
| 1 | 073 | 00060 | | 936 | 00210 | - 02000 | 067 | 00200 | 01000 | 926 | 90700 | 0000 | 39 |
| 10000 - 10000 10000 - 15000 > 15000 | 000 | 12000 - 15000 - > 20000 | - 2000 - 20000 | 8 0 0 | 02000 03500 > 06000 | - 03200 - 06000 - | | 02000 - 02000 - 04000 | - 04000 - 04000 | 200 | 01000 02000 04000 | 05000 | 8 8 8 8 8 8 |
| NO OF MEASUR. | +00123 | NO OF MEASUR | EASUR. | +00111 | 20 OF | MEASUR. | +00118 | NO OF MEASUR | EASUR. | +00118 | NO OF HEASUR. | EASUR. | +00120 |
| MEAN [X10E-23 | +02621 | MEAN | [X10E-2] | +03240 | HEAN | [X10E-3] | +00771 | MEAN | [X10E -4] | +00411 | MEAN | [X10E-5] | +00288 |
| SIGNA (X10E-21 | +02205 | SIGMA | CX10E-23 | +03212 | SIGMA | [X10E-3] | +00734 | SIGMA | [X10E-4] | +00406 | SIONA | [X10E-5] | +00476 |
| | | | | | | | | | | | | | |

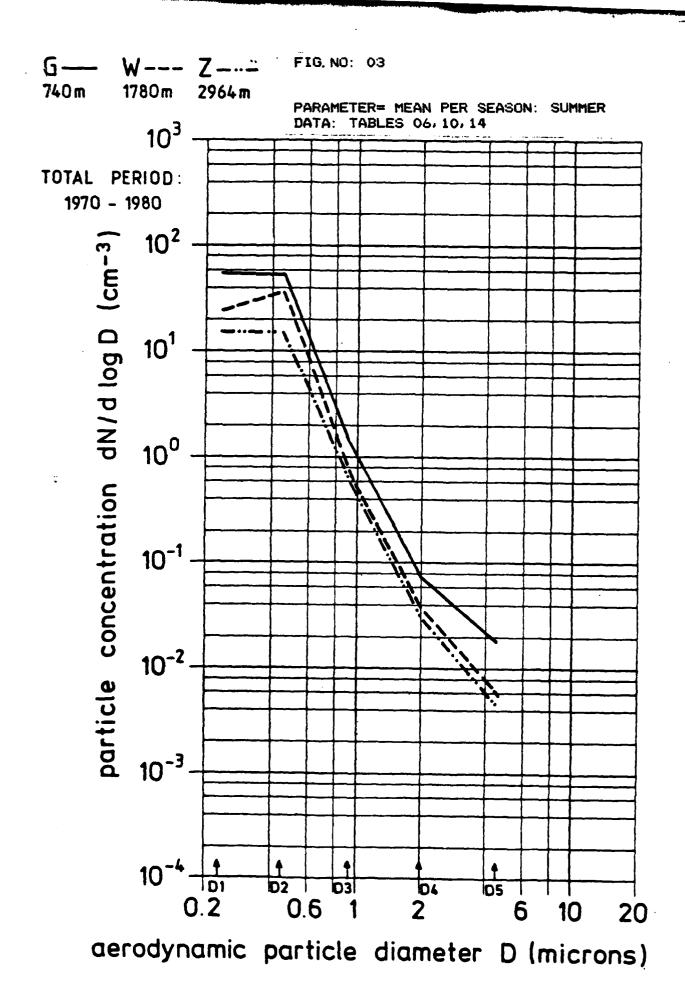
FREQUENCY DISTRIBUTION OF AEROSOL PARTICLE CONCENTRATION (PER CU CM) PER PARTICLE SIZE CLASS

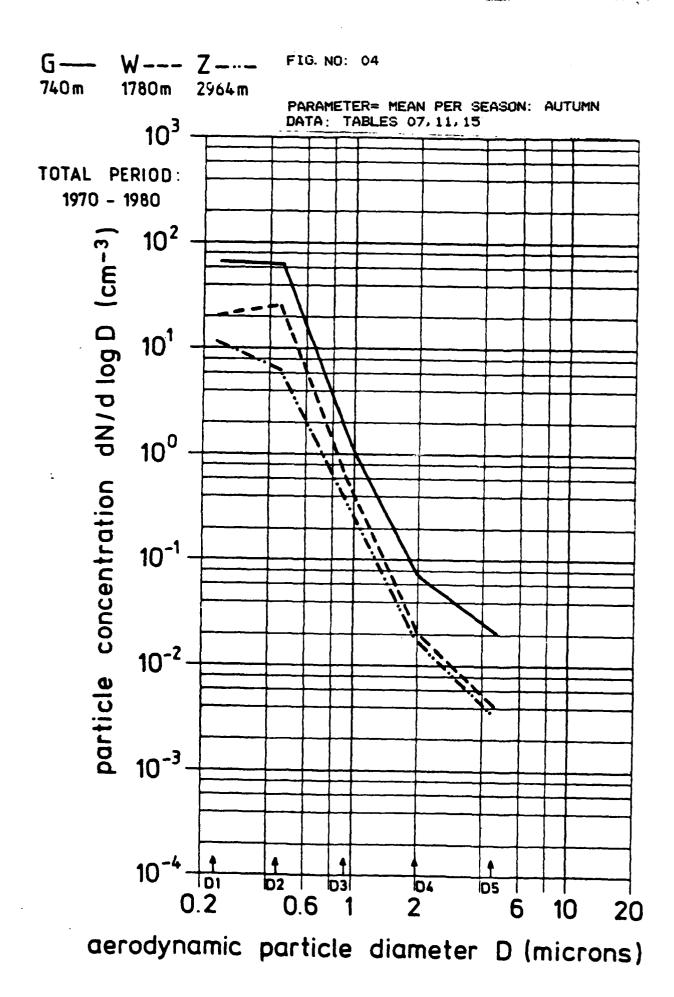
ZUGSPITZE PEAK 3000 M TABLE: 98

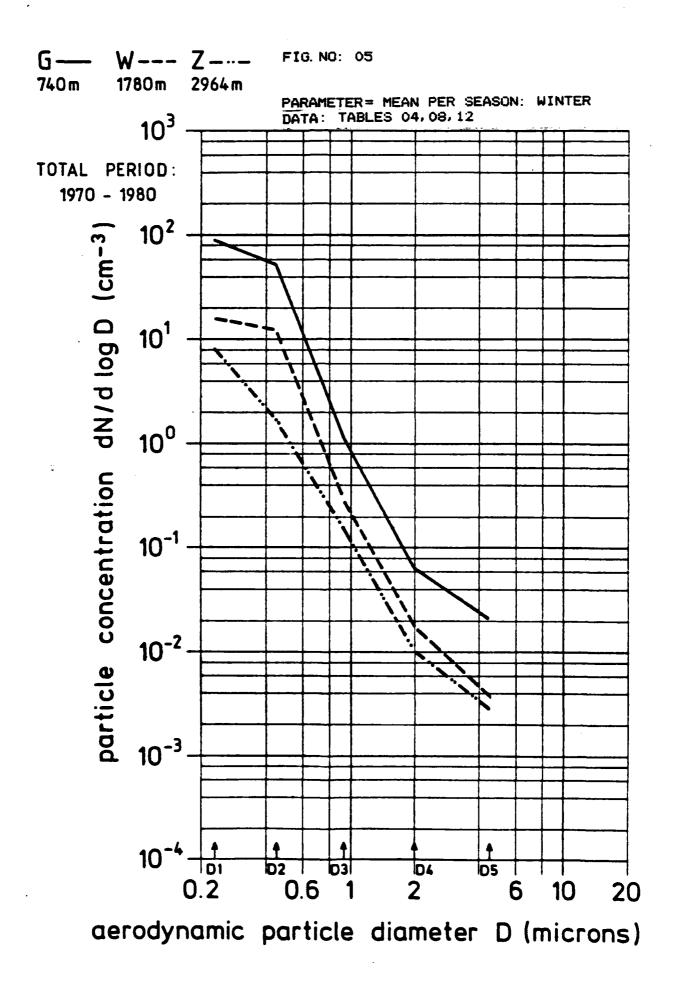
| | - 4.50 HI | RES. NR.: 186 | PARTICL. CONC. FREQUENCY (X10E-5) (1/10 X) | C 00025 C 00026 C 00050 C 00076 < | 25 - 00150 048 50 - 00175 067 75 - 00200 029 00 - 00225 067 25 - 00250 019 | 50 - 00275 038 75 - 00300 058 50 - 00325 019 50 - 00400 058 50 - 00400 097 50 - 00500 058 50 - 01000 087 50 - 01000 087 | 22000 F MEASUR. +000 [X10E-5] +00 |
|---------------------|-----------|---------------|---|--|--|--|---|
| | 整 | | | 00023 00023 00076 00100 | 00125 00130 00175 00200 | 00230 00273 00273 00323 00323 00400 00730 01000 | NO OF STOPEN |
| | | | FREQUENCY [1/10 X] | 054 108 072 000 | 018 043 090 108 | 034 036 036 090 063 081 000 | 000 +00111 +00313 +00392 |
| | 2. 60 MI | 281 | | - 00030 - 00043 - 00060 - 00060 | 00090 00103 00120 00150 | 00250 00300 00400 00400 00500 00500 1111111111111 | 000 MEASUR. EX10E-41 EX10E-41 |
| нісн) | D4 = 2. | RES. NR. | PARTICL, CONC. [X10E-4] | 0001500015000300004500060 | 00073 00090 00103 00120 | 00200 00250 00300 00400 00600 00900 01500 05000 | > 10000 NO OF MEA MEAN IX SIGMA IX |
| | | | FREGUENCY [1/10 %] | 009 072 072 027 | 036 063 009 009 | 054 018 072 072 117 090 045 | 000 +00111 +00500 +00735 |
| PC/CU M (VERY | 0. 93 HI | 184 | _ | 015 - 00030 - 00045 - 00060 - 00075 | - 00105 - 00105 - 00120 - 00150 | 00230 00300 00300 00400 00400 00500 10000 10000 | MEASUR. [X10E-3] |
| >18 PC, | 0 = 60 | RES. NR. : | PARTICL. CONC. [X10E-3] | 00013 00013 00030 00045 00060 | 00075 00090 00105 00120 00130 | 00200 00250 00300 00400 00400 00600 01500 02500 | > 10000 ND OF MEA MEAN (X |
| PITZE | | | FREQUENCY [1/10 X] | 035 040 044 | 017 026 044 062 | 044 035 062 060 060 060 060 | 000 +00112 +01027 +01451 |
| BERYLLIUM 7 ON ZUGS | = 0.45 HI | | | - 00045 - 00045 - 00060 - 00060 | 00090 00103 00120 00130 | 00250 00300 00400 00400 00500 00500 005000 10000 | 76000 FEASUR. CX106-23 |
| 1 M 7 | D2 = 0. | RES. NR. : | PARTICL. CONC. [X10E-2] | C 00015 00018 - 00030 - 00045 - | 00075 00090 00105 00120 00150 | 00230 00230 00230 00400 00400 00600 01300 02300 | > 10000 NO OF MEA MEAN CX SIGMA CX |
| BERYLL | | | FREGUENCY | 043 043 070 070 | 033 033 017 061 | 043 043 052 070 061 061 | +00114 +01160 +01437 |
| PARAMETER= | ≈ 0.23 HI | : 182 | | 50 - 00100 - 00150 - 00200 - 00250 | 00300 00350 00500 00500 | 00800 01000 01250 01500 02000 04000 06000 | MEASUR. [X106-2] [X106-2] |
| PARA | 0 = 0 | RES. NR. : | PARTICL. CONC. [X10E-2] | C 00050 00050 - 00100 - 00150 - 00200 - | 00250 00300 00350 00400 00500 | 00600 01250 01500 01500 01500 04000 | NO OF PEA NEAN IX SIGHA IX |

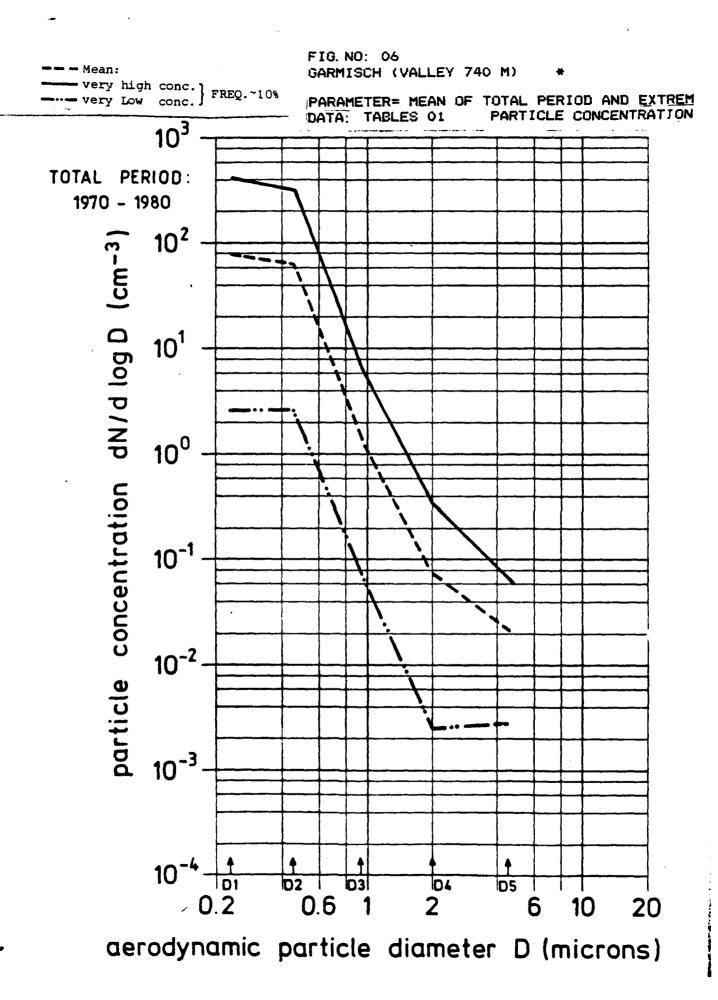


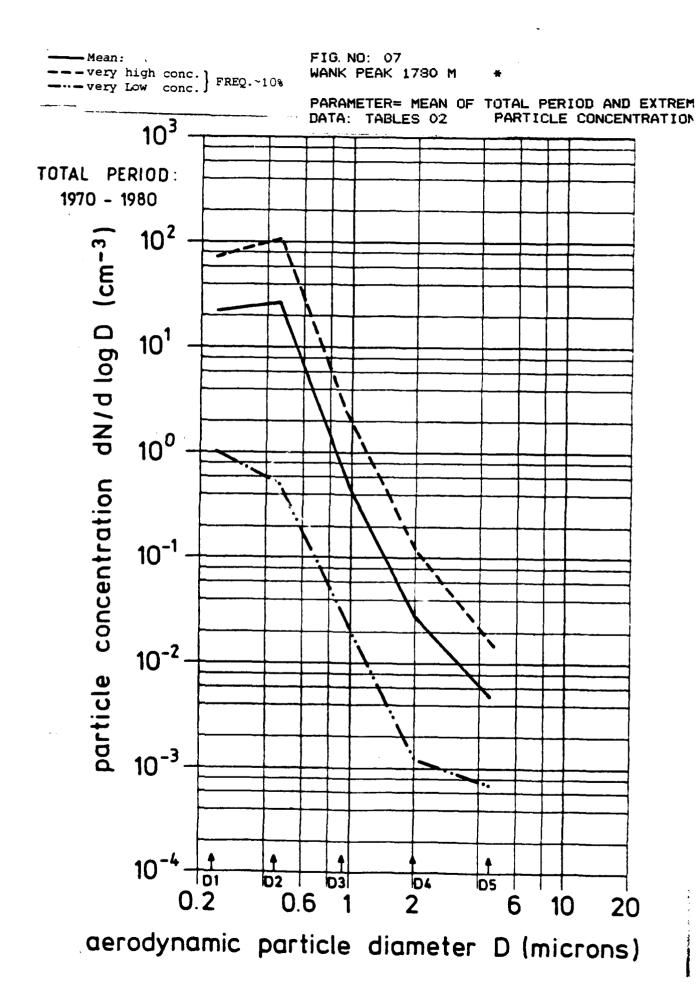


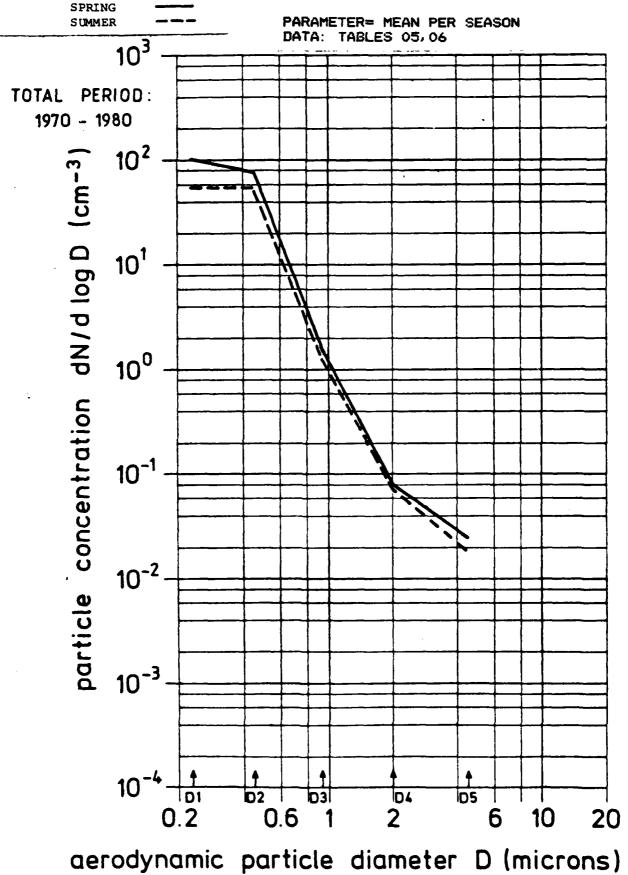


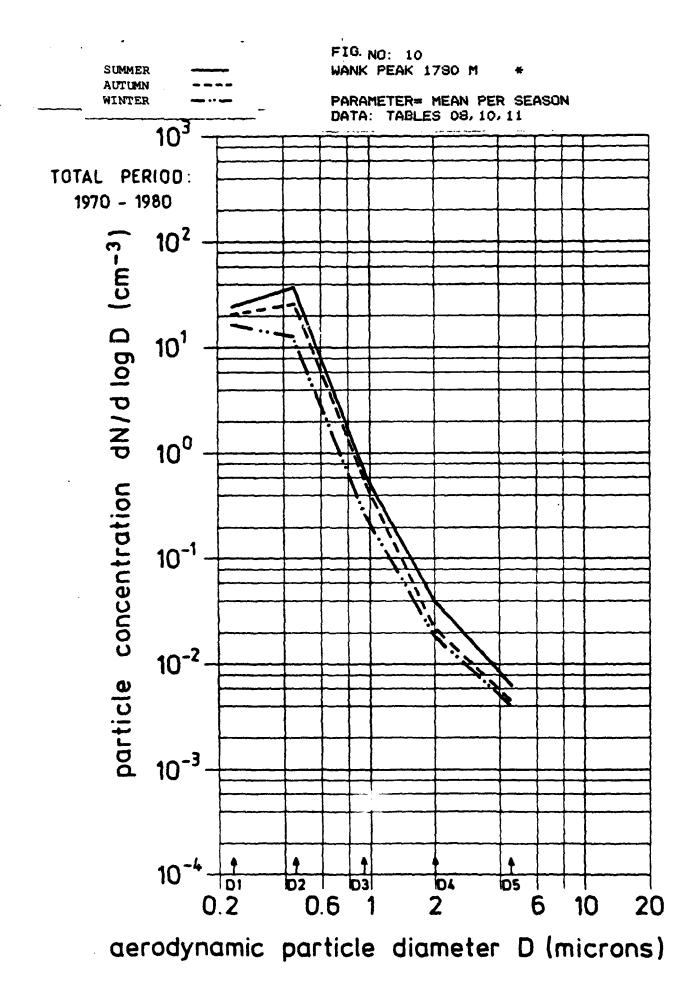


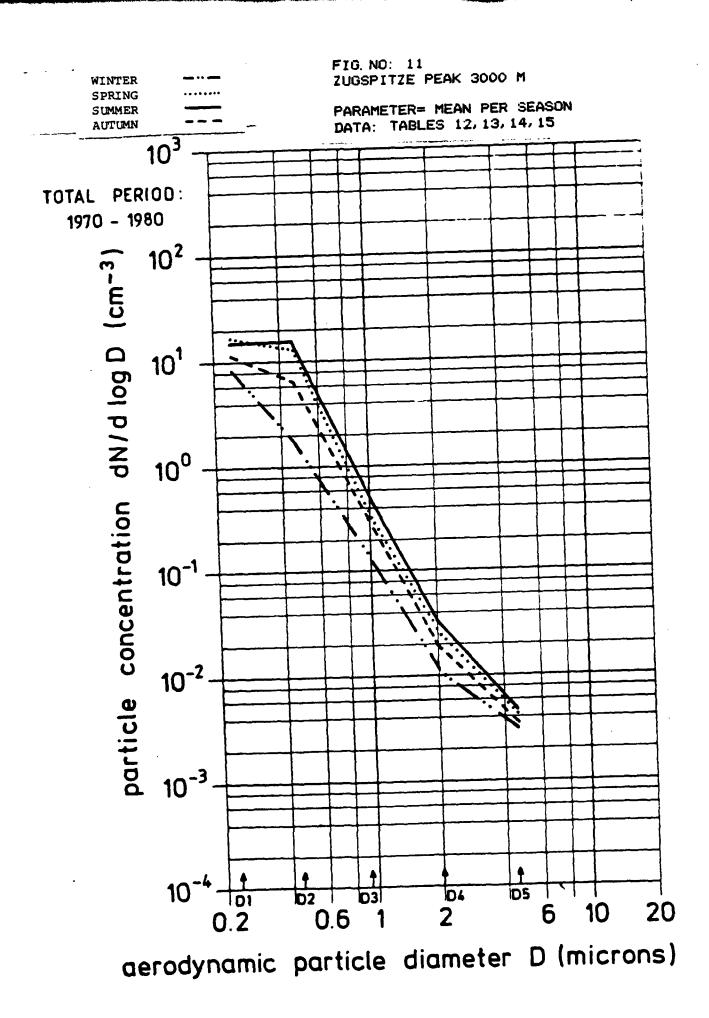


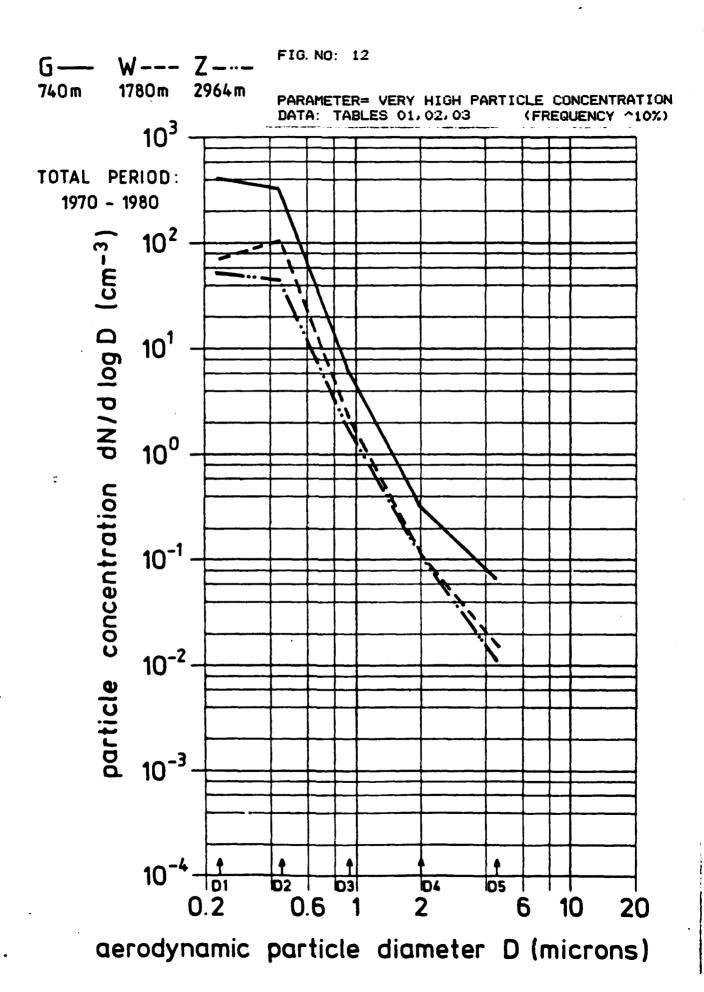


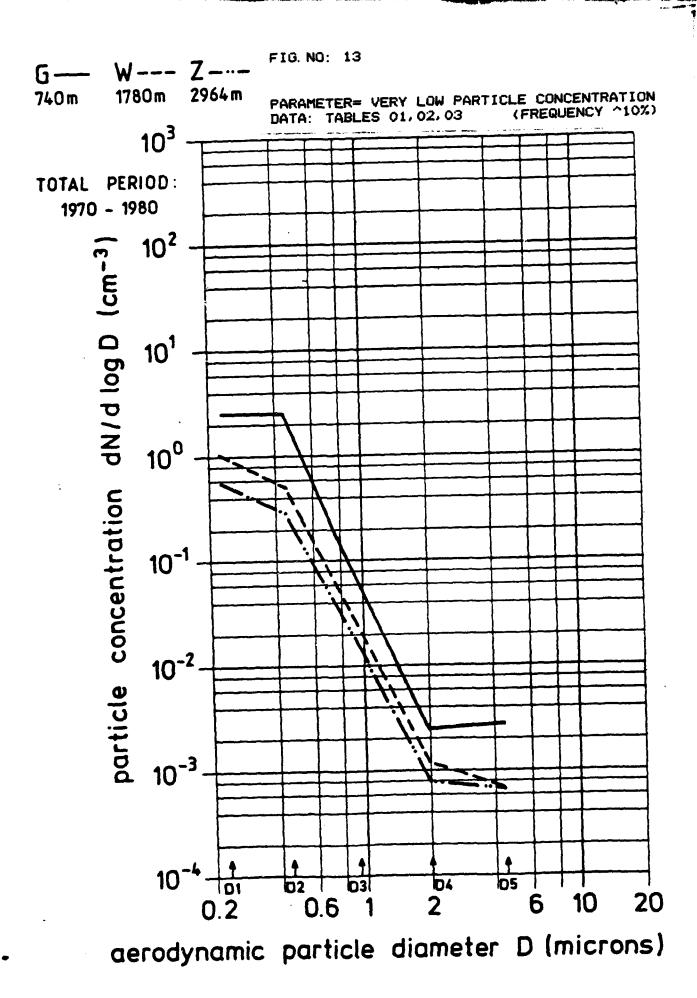


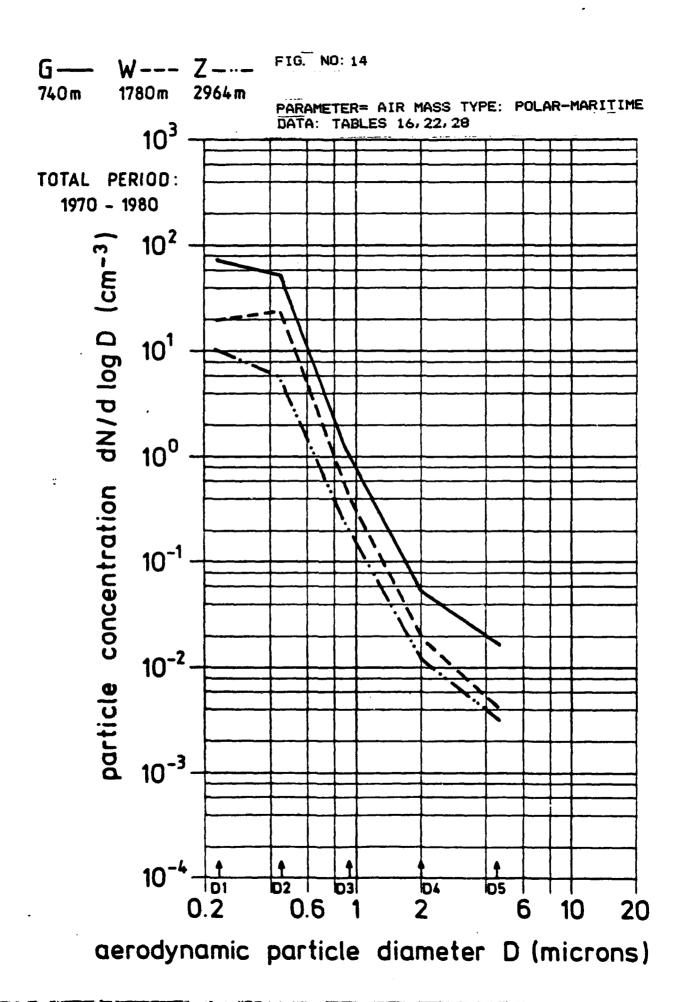


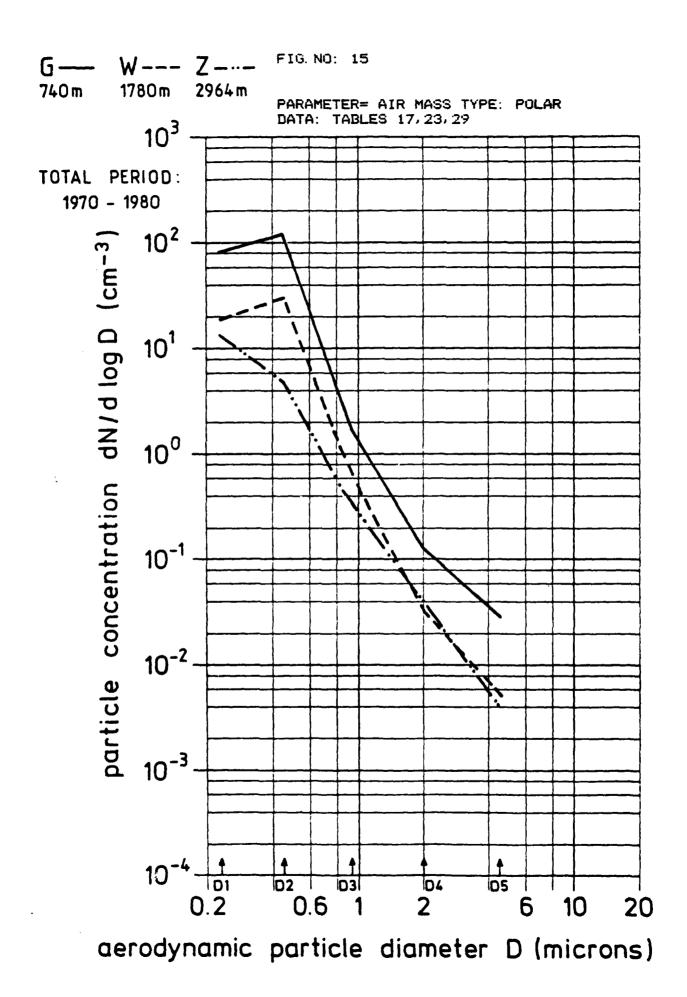


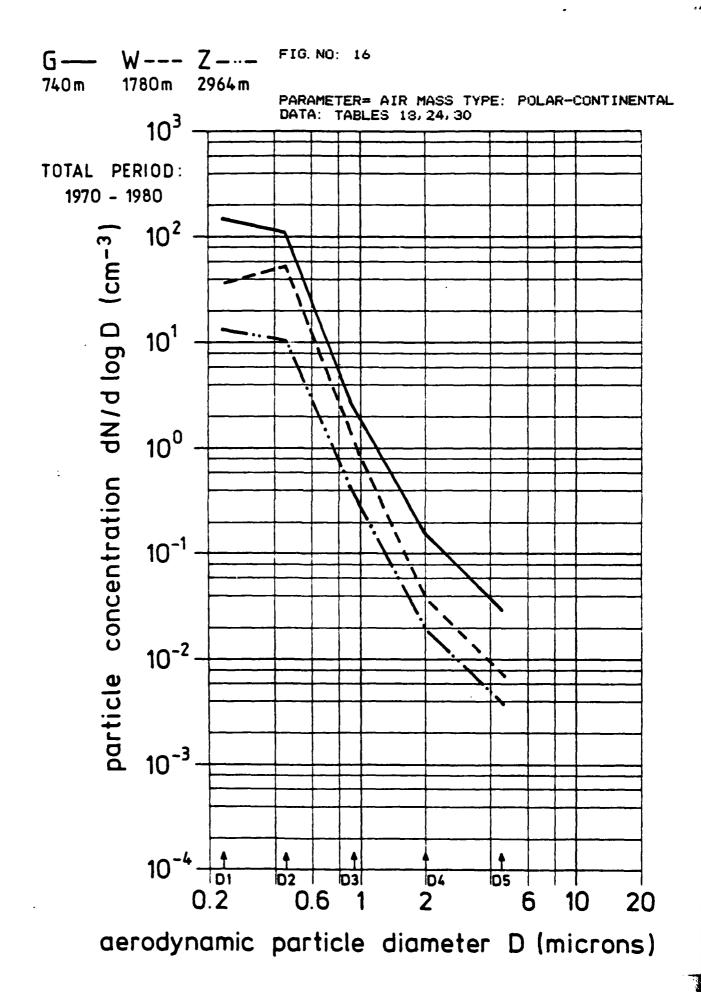


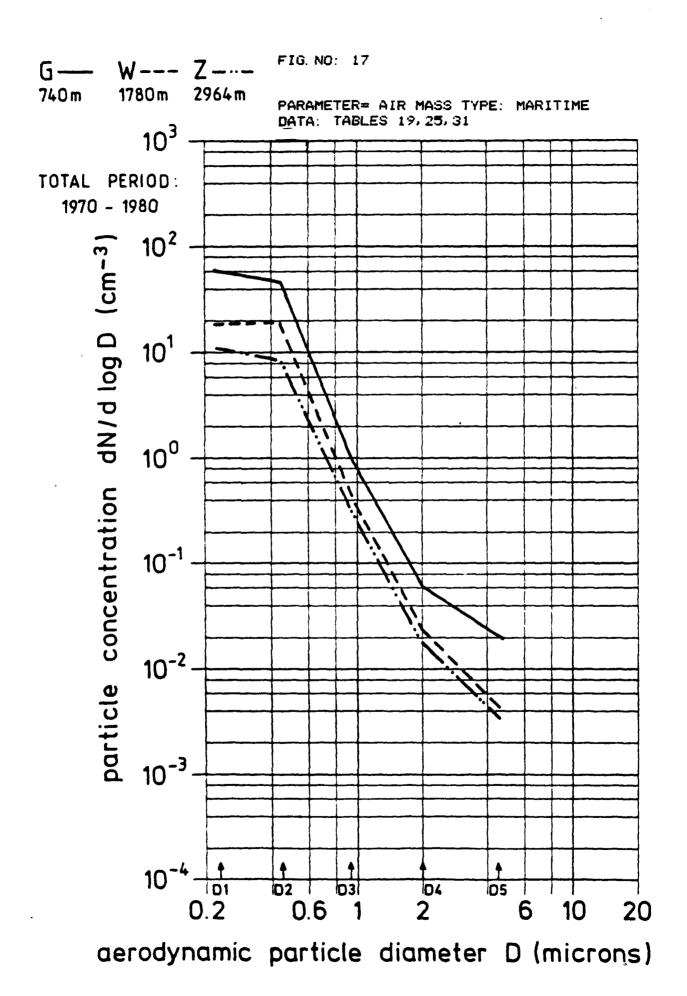


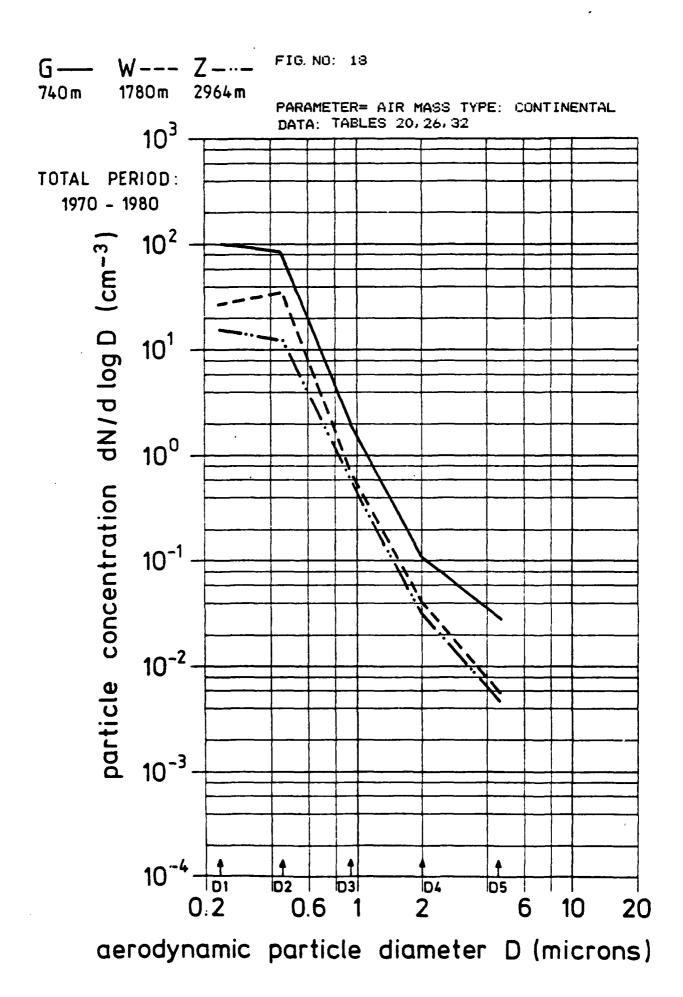


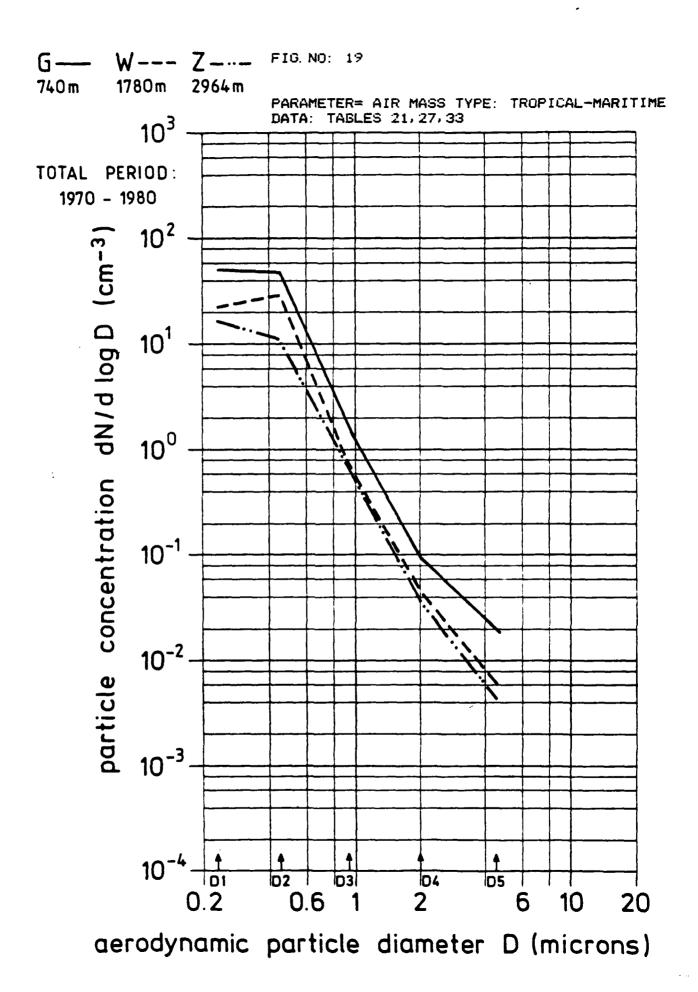


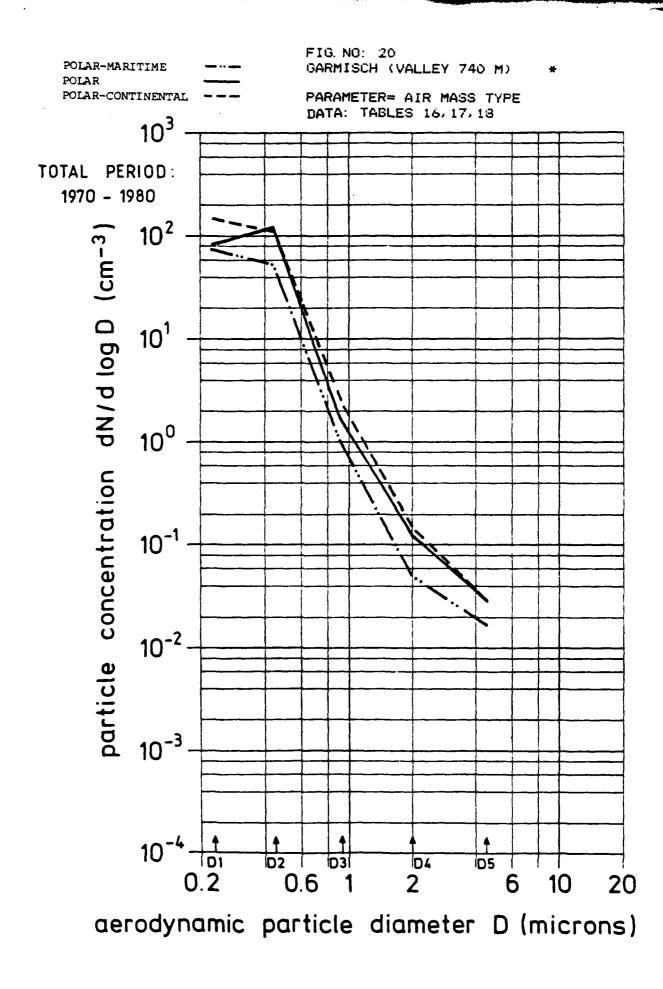


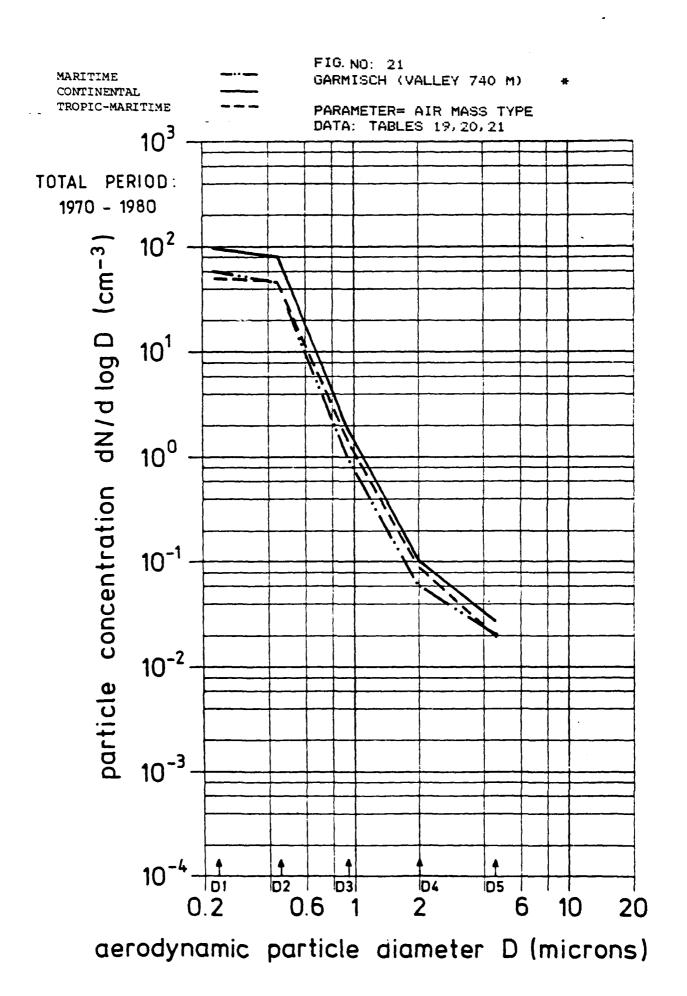


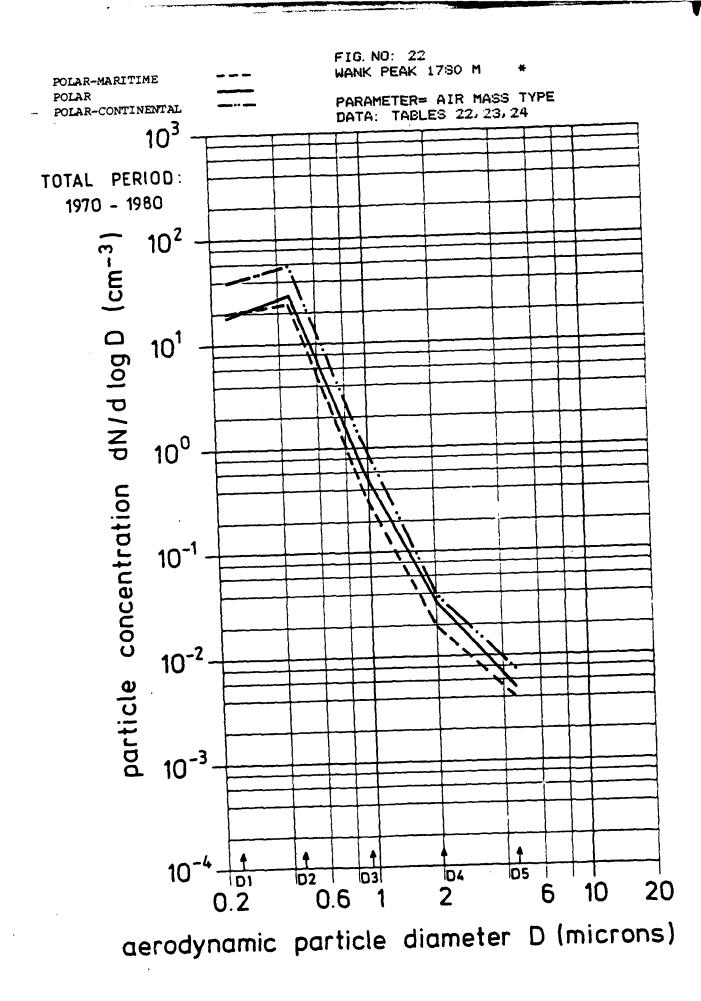


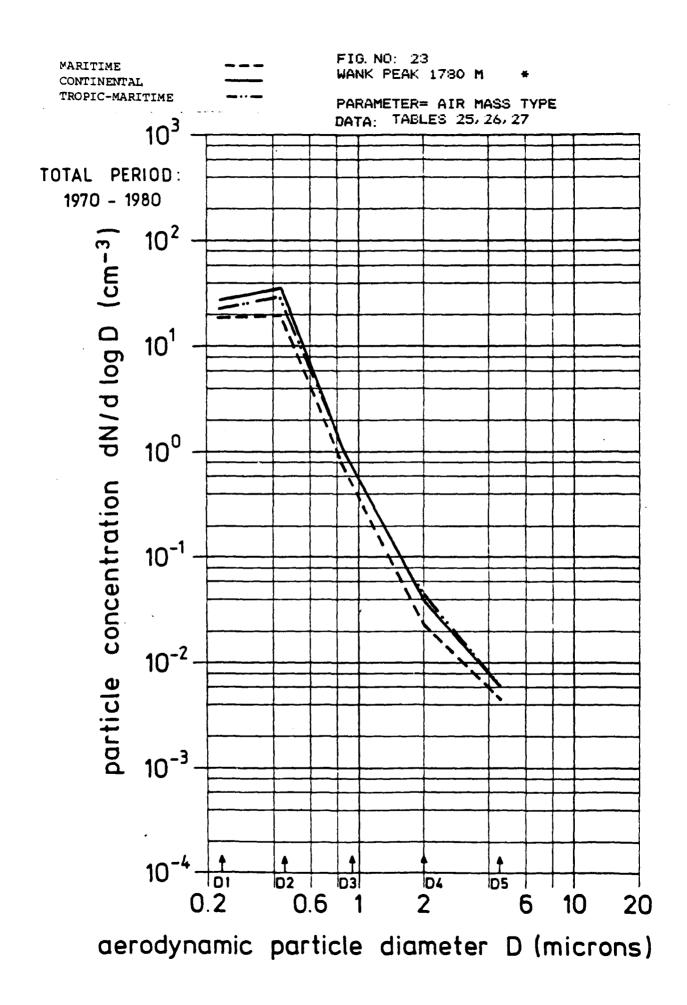


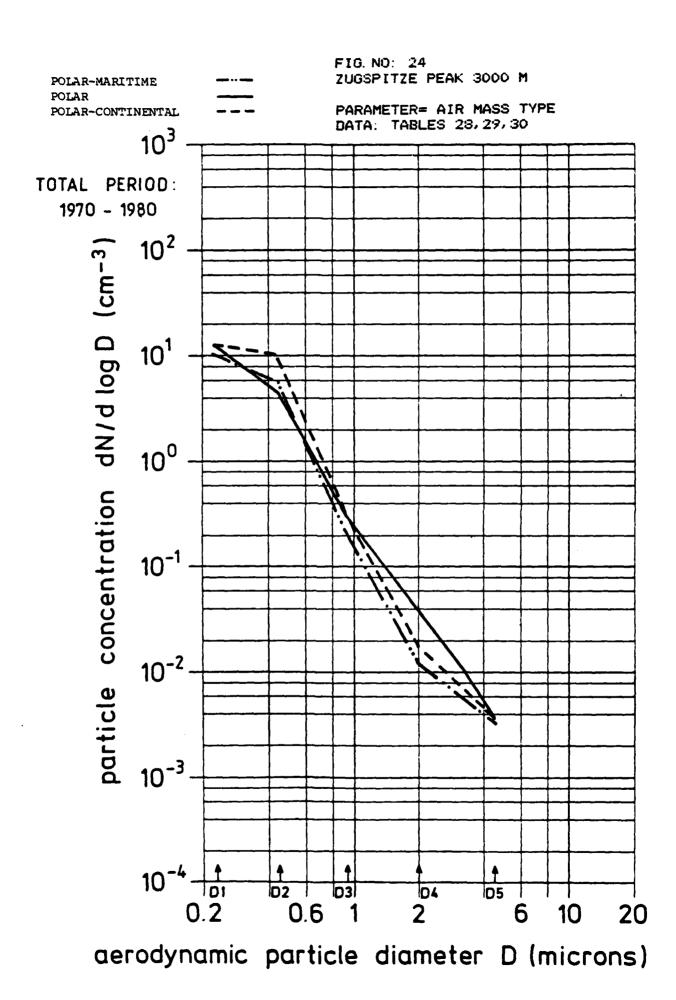


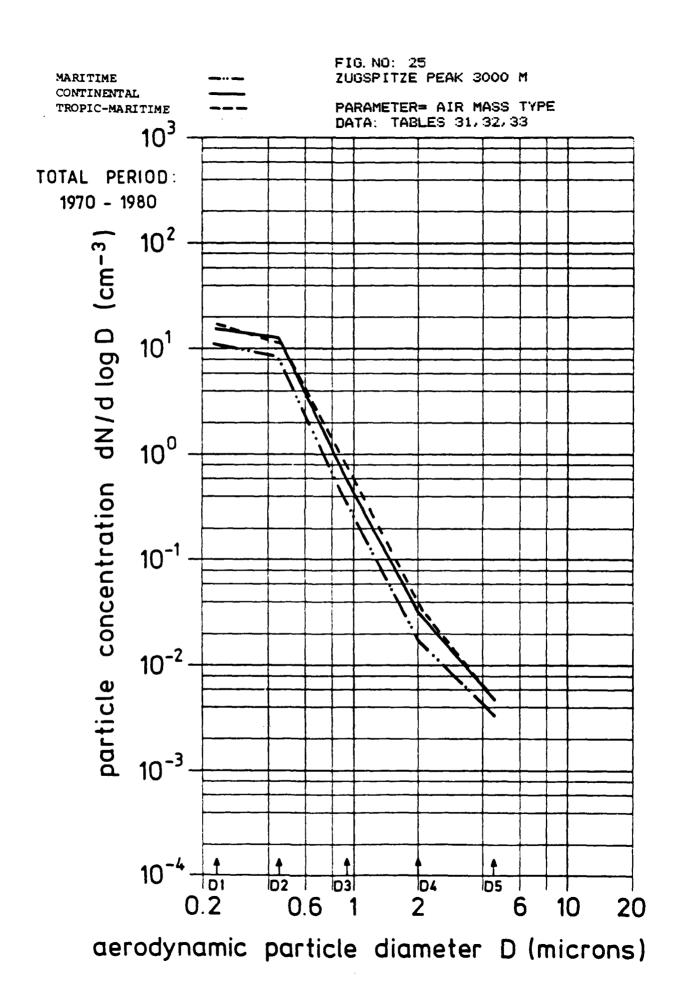


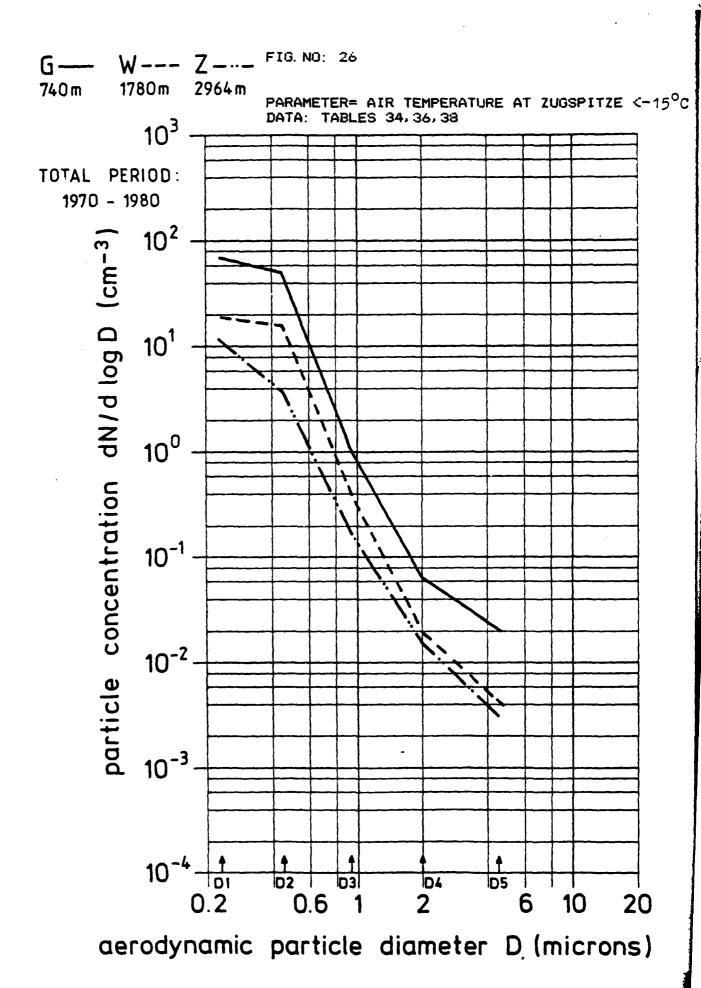


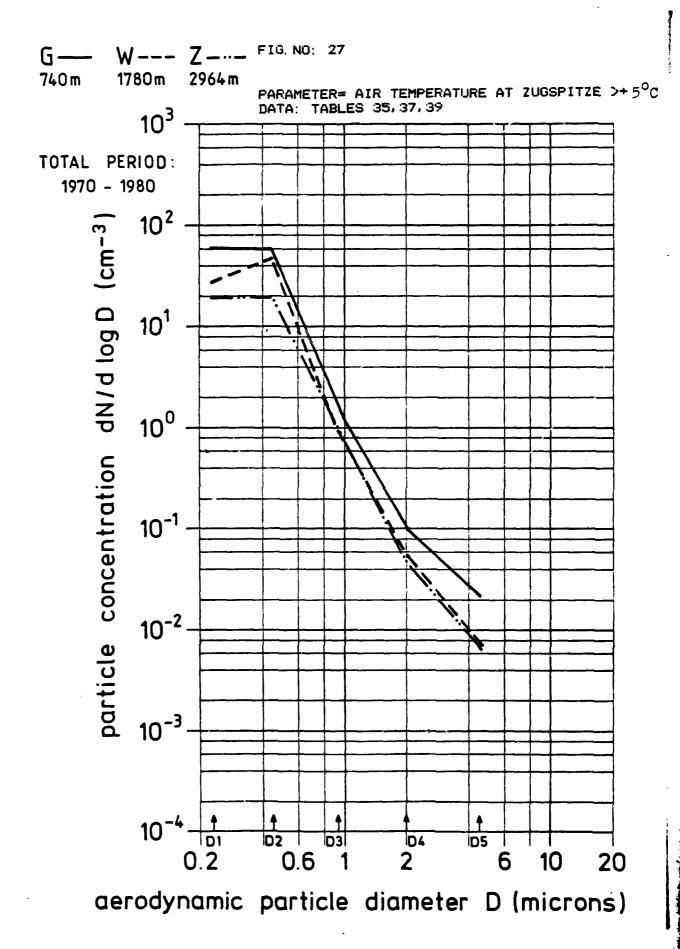


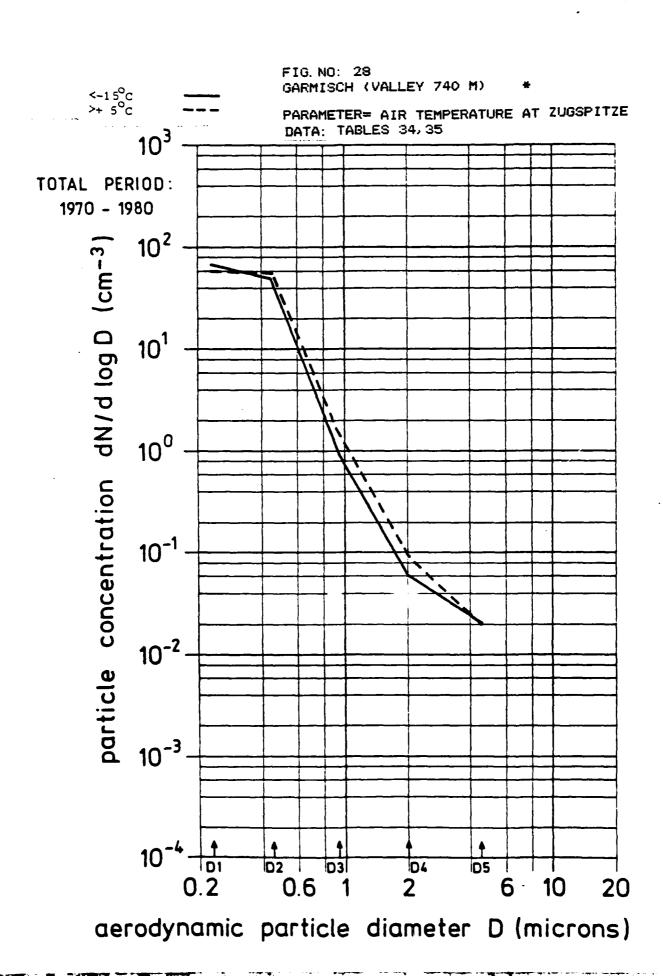


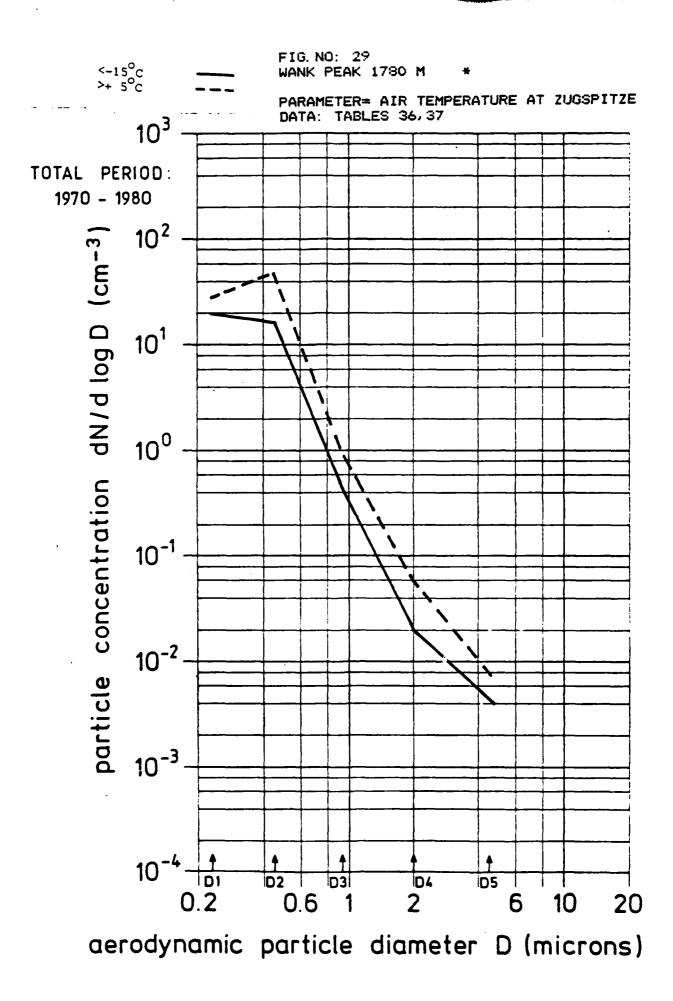


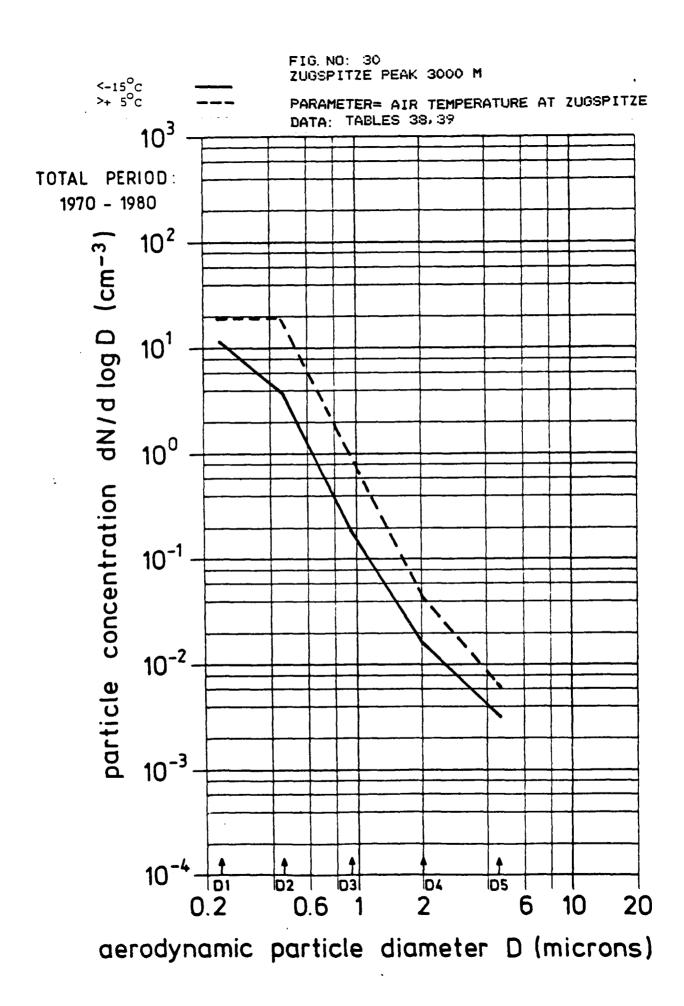


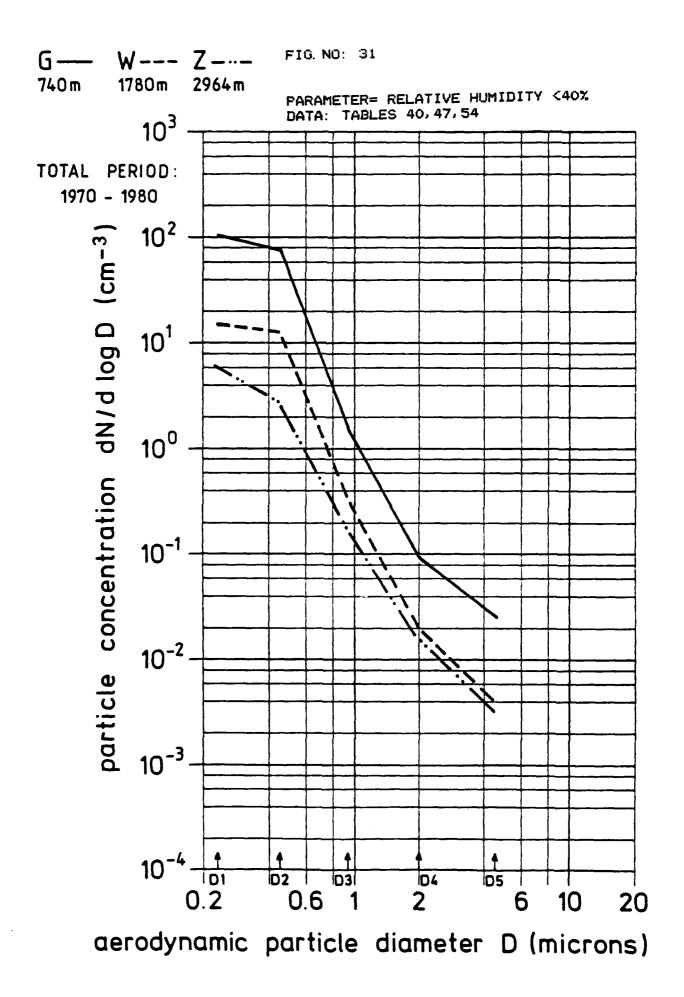


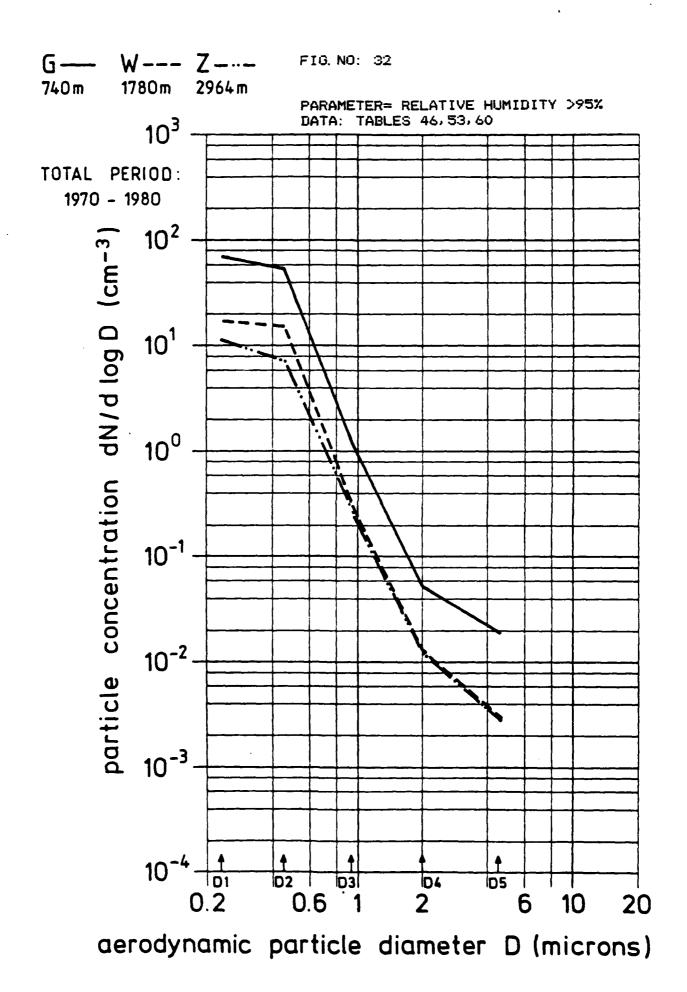


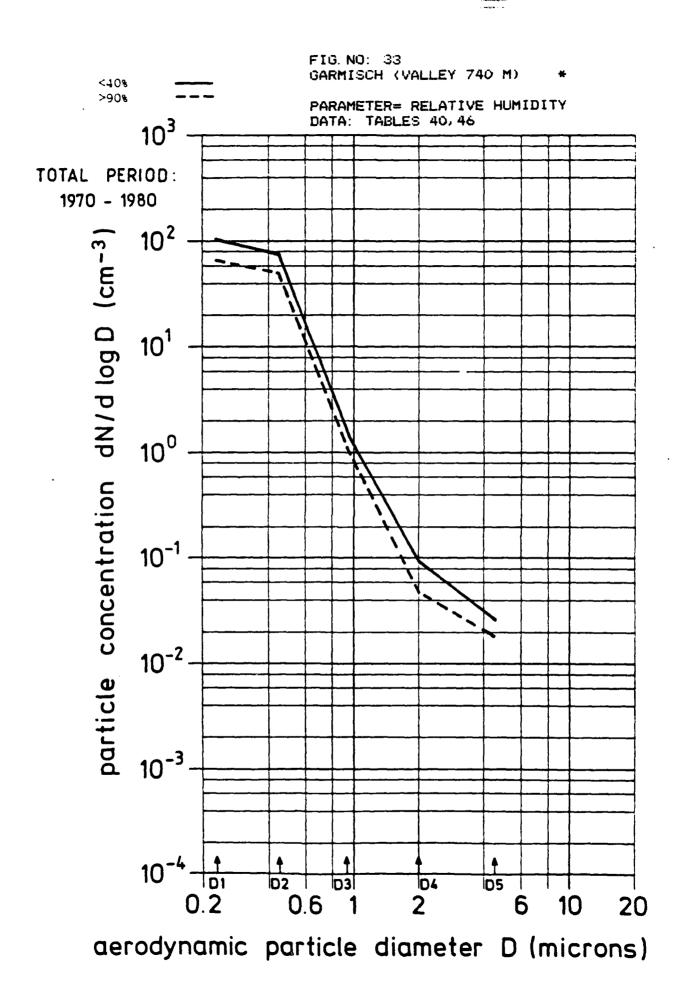


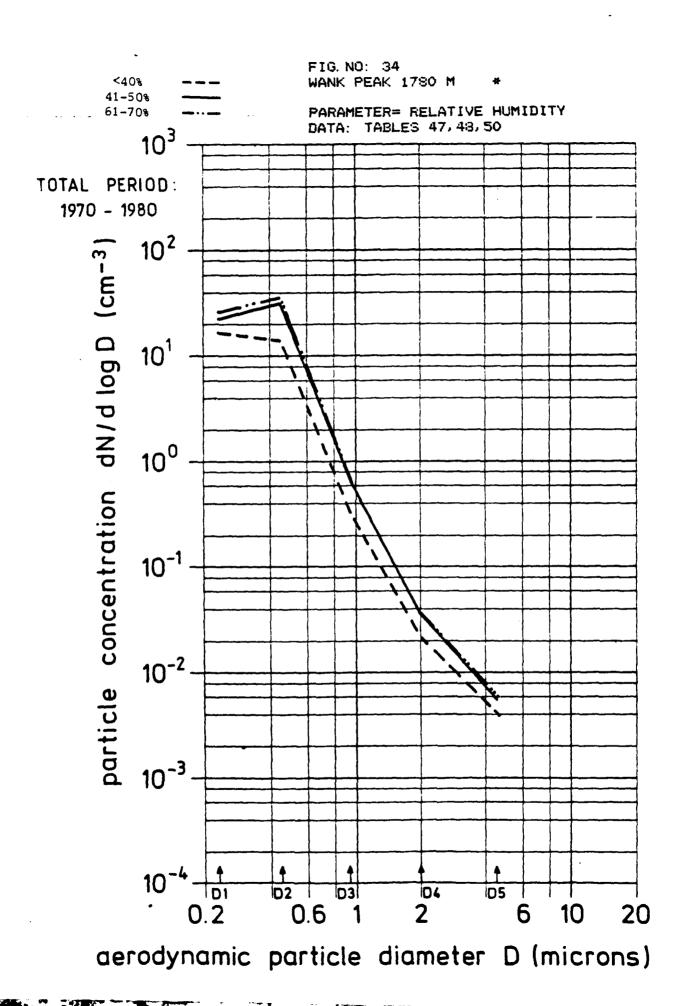


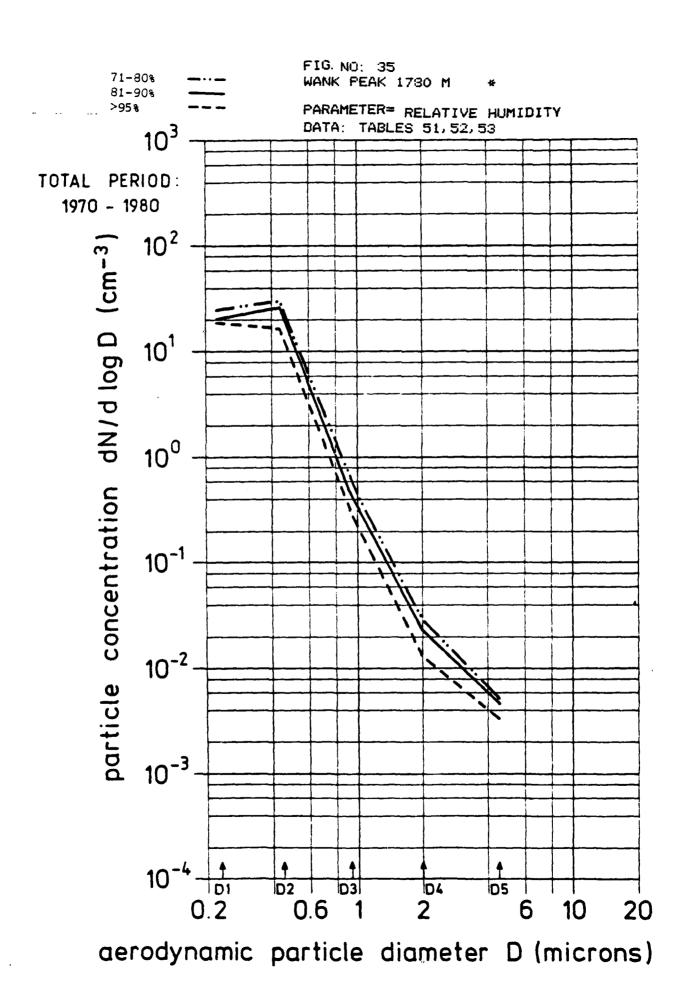


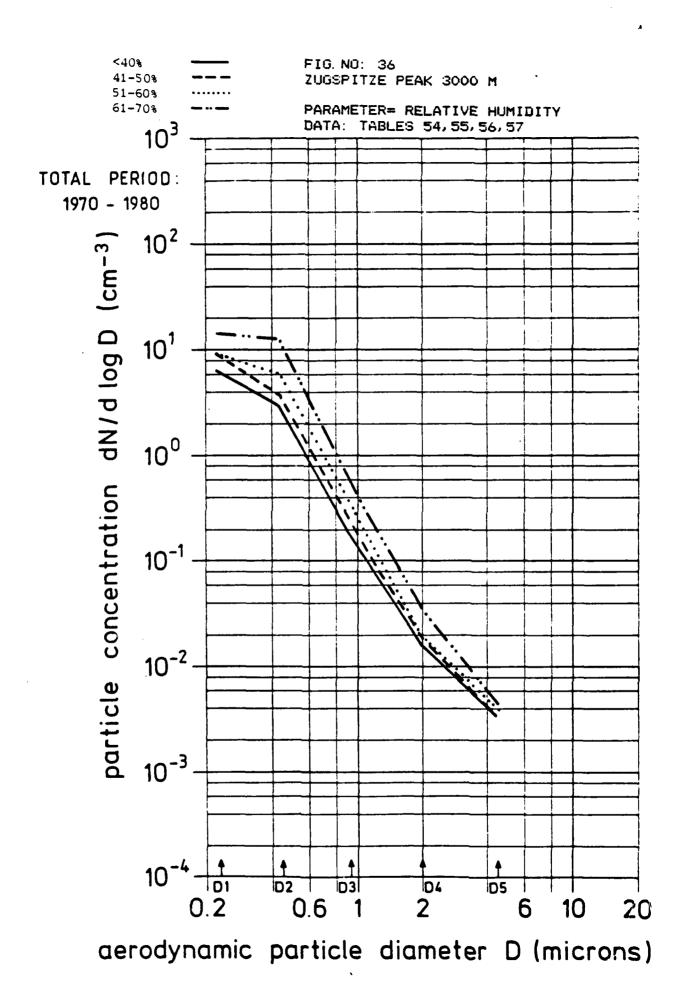


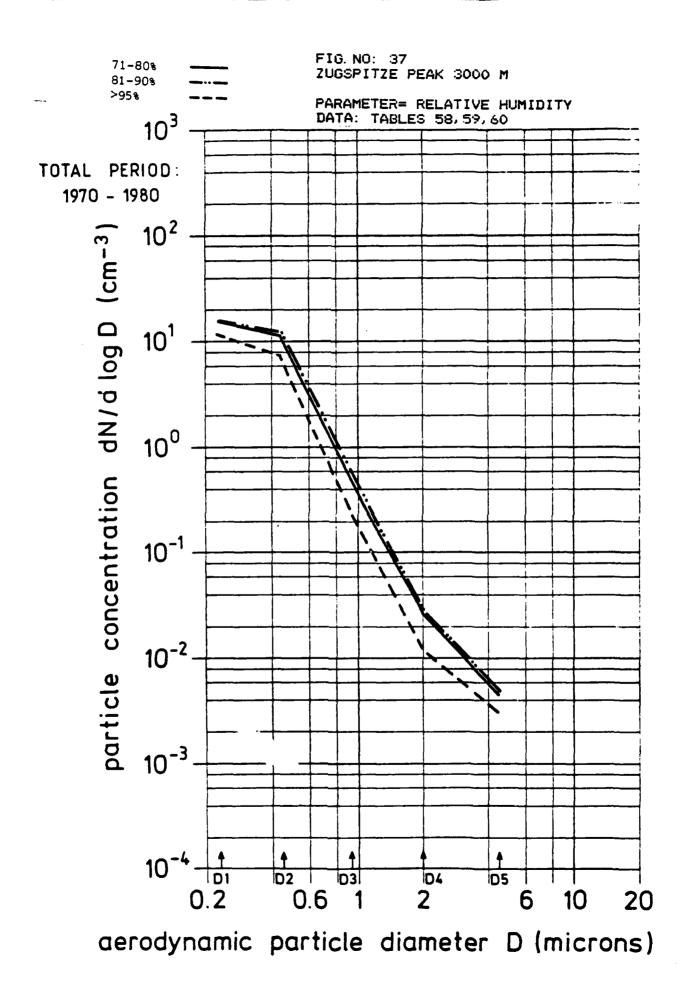


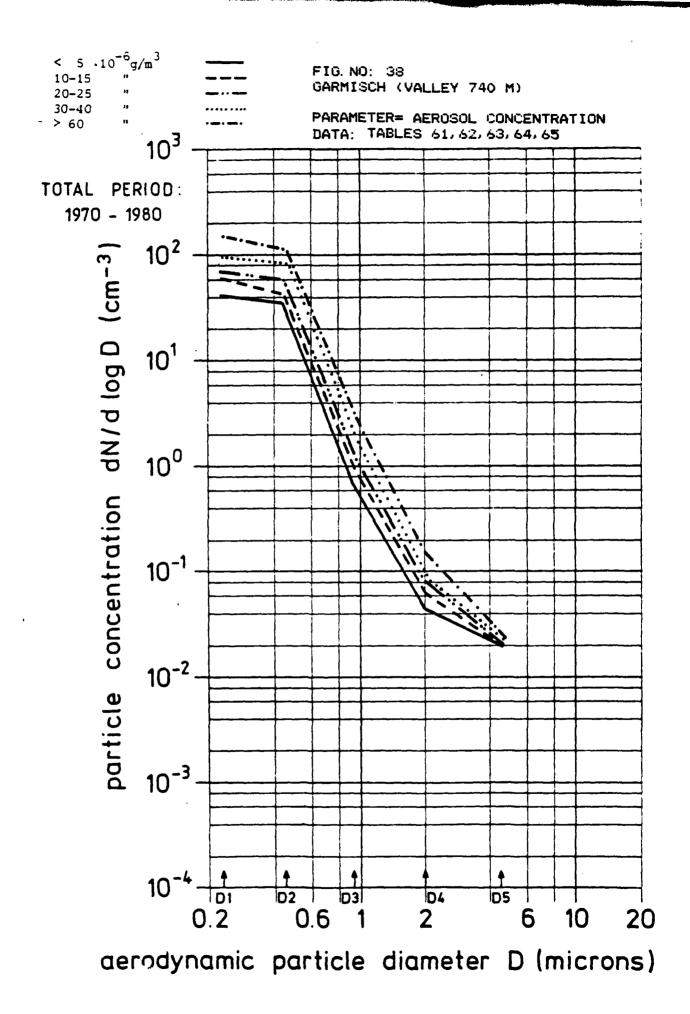


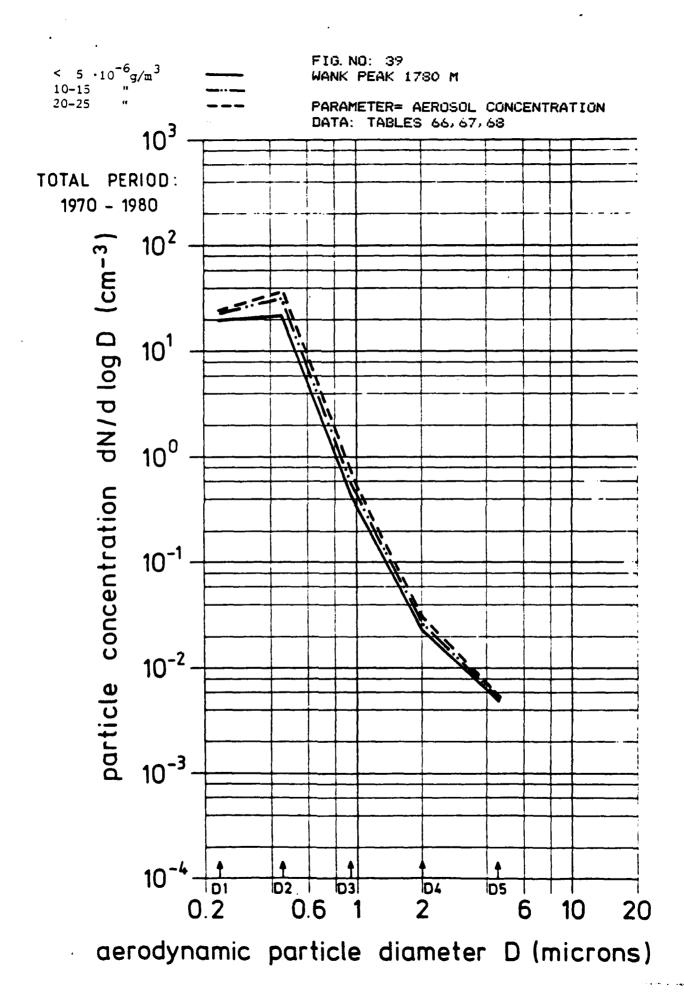


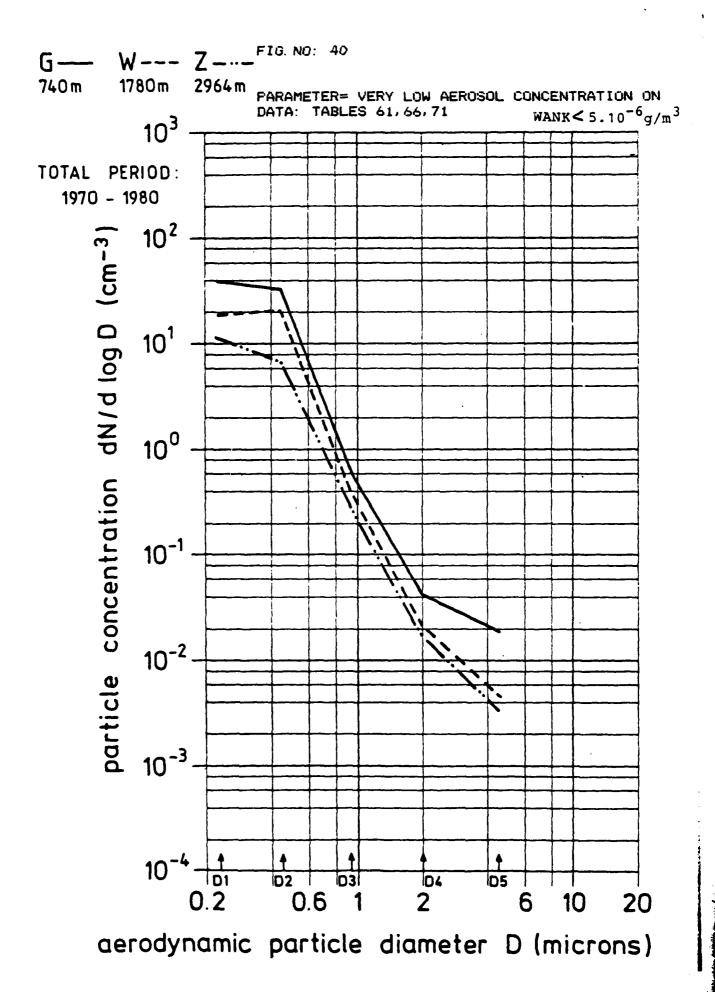


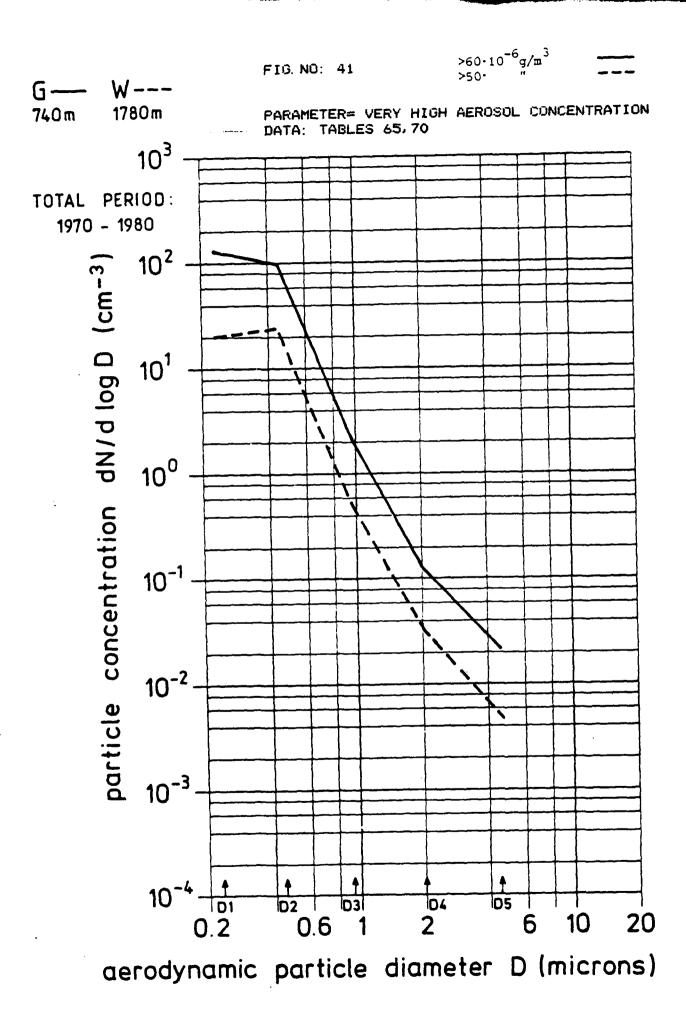


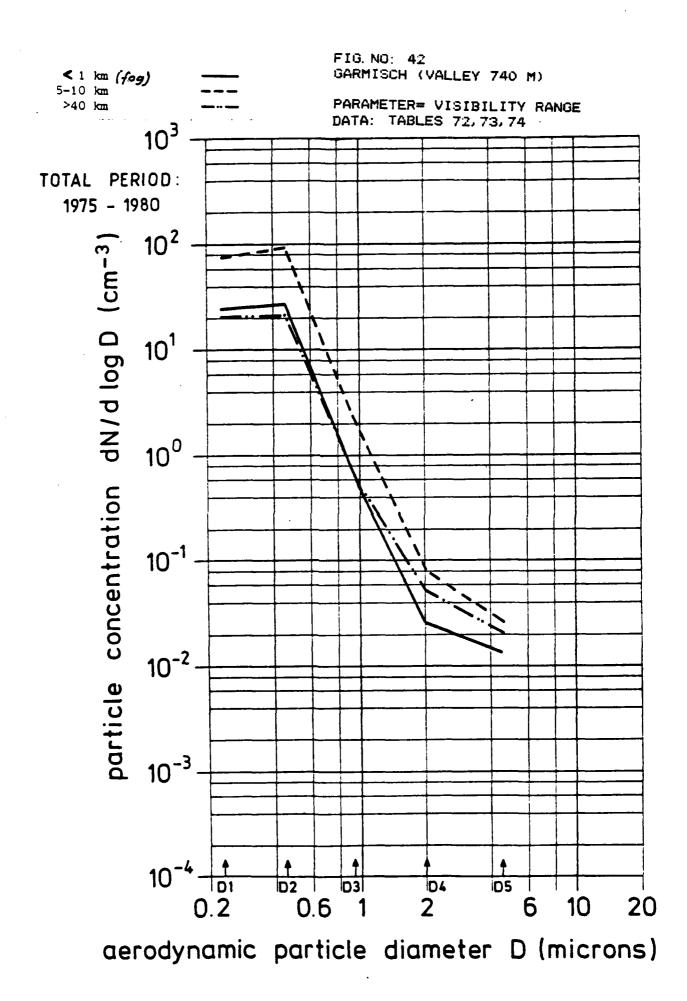


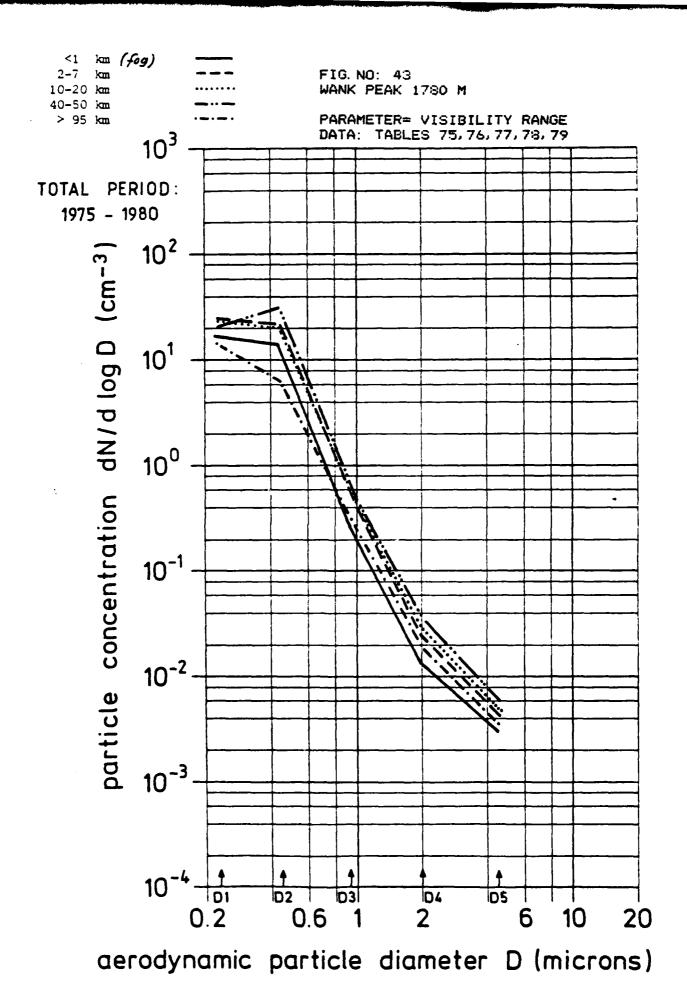


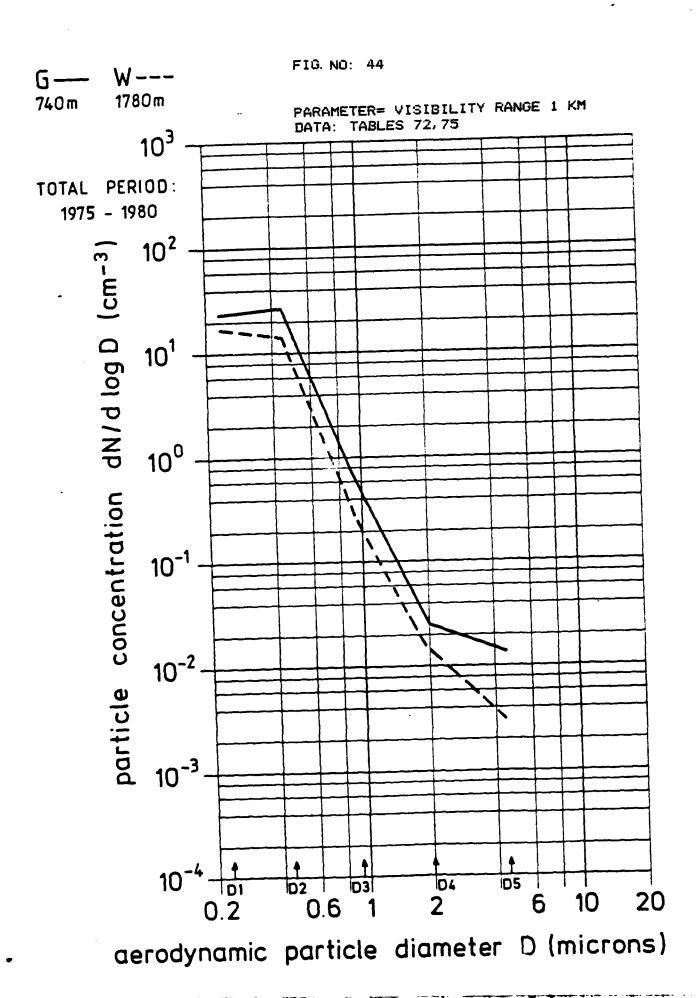


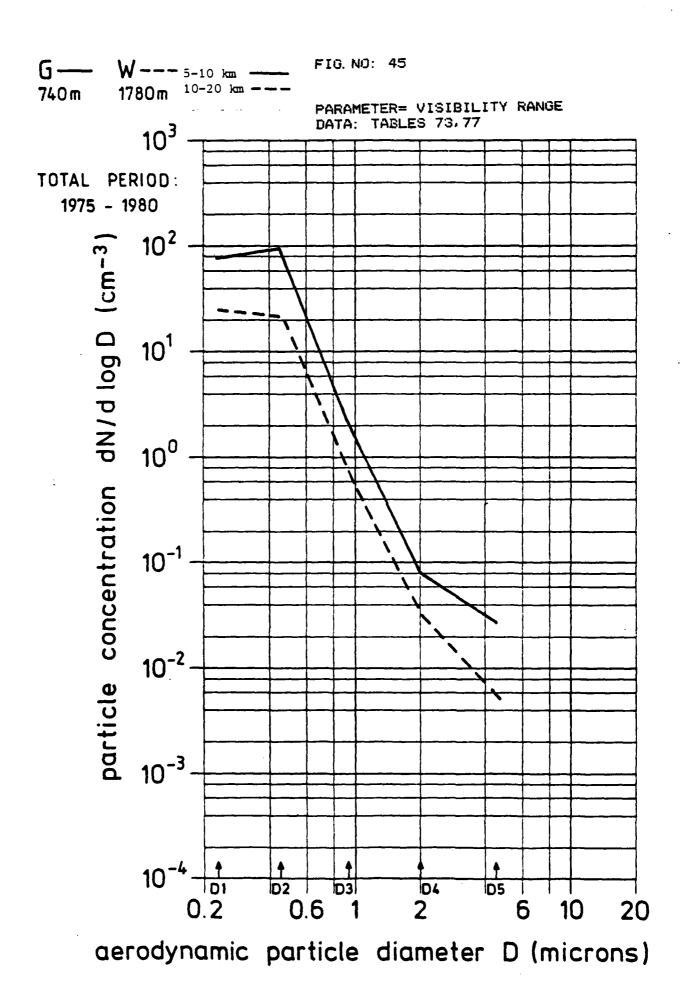














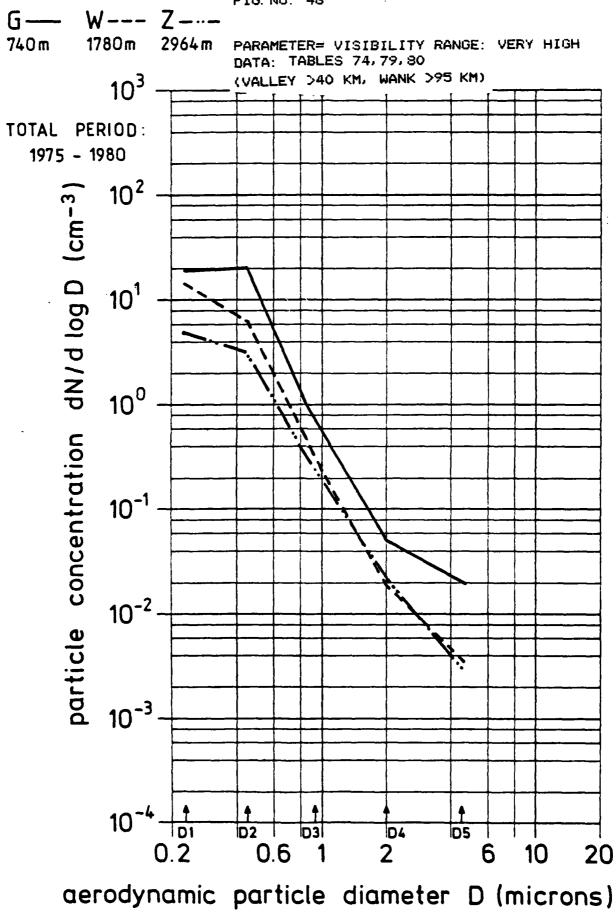


FIG. NO: 47

